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The very Rev. Father Glover,

11.3.D.15

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THE  
THIRD BOOK  
OF  
READING LESSONS,

COMPILED BY  
THE BROTHERS OF THE CHRISTIAN SCHOOLS.



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WILLIAM POWELL, 68, THOMAS-STREET.

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## PREFACE.



THE THIRD BOOK OF READING LESSONS, now presented to the Public by the Brothers of the Christian Schools, will be found to correspond in matter and arrangement with the volumes previously offered. In its adaptation to the analytic or explanatory mode of instruction, as well as in the order, variety, and graduated scale of the lessons, this little volume will be found, not only to harmonize with the plan of education adopted by the Institute from which it emanates, but to exhibit its peculiar features.

In the short sketches of History, Geography, and Science, which are scattered throughout the work, the compilers have endeavoured to select whatever was most picturesque and striking, for the purpose of exciting the interest of the youthful mind, by the charms of truth, and presenting the wonders of nature in so strong a light, as to render the marvels of fiction tame and feeble in comparison. In order to accommodate the length of the extracts to the capacity of the class of readers, for whom the Third Book is designed, and to afford the teachers an opportunity of practical illustration, it has been considered expedient to render the lessons as short as the nature of the subjects would admit. By the miscellaneous character of the arrangement, an opportunity is afforded of training the pupil to habits, not only of observation, but of reflection; the first, by a reference

to living objects, or to the scenes and characters of real life; the second, by the impressive appeals of religious truth, which, apart from their moral effects, possess a paramount influence in giving a reflecting tone to the mind. As the facts of religion have furnished at all times the best refutation of its adversaries, it has been considered judicious, occasionally to vary its didactic lessons with brief extracts from the History of the Christian Church.

Among the moral and religious pieces in prose and poetry, the pupils of the Christian Schools will recognize the effusions of one whose voice once supplied the lessons now furnished by his writings, and whose living example impressed the moral which his memory must illustrate for the future. The look of attention and the tone of benevolence, in which these lessons were conveyed, will indeed be missed, but his spirit will still speak to the hearts of those over whom he bent with more than parental solicitude. In recalling the memory of one who, for their sakes, forsook not only the first circle of literary distinction, but the more endearing one of kindred and of home, it will not fail also to convey the salutary truth, that the highest attainments of the scholar may be still further exalted and ennobled by religion; that the lustre of genius never appears to such advantage as through the veil of humility; and that the moral beauty of virtue itself acquires an additional charm when exercised in the cause of charity.

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# THIRD BOOK

OF

## READING LESSONS.

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### SECTION I.

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### LESSON I.



#### IMPORTANCE OF EARLY HABITS.

Corruption	enjoyment	imagination
characters	misfortune	importunate
unchangeable	encouraged	accompany
laudable	propensities	accustomed
inclinations	recollection	insupportable
accustom	criminal	tumultuous.

WE shall not gather in old age that which was not sown in youth. If you "sow corruption," says the Apostle, "you shall reap corruption." You say every day yourselves, *that we always die as we have lived*; that characters are unchangeable; that we carry into advanced life, all the faults and passions of our early days, and that there is no greater happiness than to form in our youth those laudable inclinations which accustom us, from childhood, "to the yoke of the Lord."

If we regarded only our repose in this life, and had no other interest than to prepare for ourselves quiet and happy days, what previous enjoyment it would be, to stifle in their birth, and turn at last to virtue, so many violent passions which afterwards rend the heart, and cause all the bitterness and misfortune of life ! What felicity, to have encouraged none but innocent and amiable propensities, to be spared the wretched recollection of so many criminal pleasures, which corrupt the heart and sully the imagination, leaving a thousand shameful and importunate images, which accompany us almost into virtue, survive our crimes, and are frequently the cause of new ones ! What happiness to have passed our first years in tranquil and harmless pleasures, to have accustomed ourselves to contentment, and not contracted the mournful necessity of engaging in violent and criminal pleasures, making the peace and sweetness of innocence and virtue insupportable, by the long indulgence of ardent and tumultuous passions ! When youth is passed in virtue and in dread of vice, it draws down mercy on the remainder of our lives ; the Lord himself watches over our paths ; we become the beloved objects of his special care and paternal goodness.

MASSILLON.

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## LESSON II.

## INSTANCE OF ANIMAL SAGACITY.

African	discovered	America
continued	amusement	impatiently
approached	understood	awaiting
considerable	absolutely	contentedly
expression	particulars	benefactor
apprehend	distinction	assistance.

A SEAMAN belonging to the wood party of a ship upon the African coast, by some means found himself alone. He, however, continued to use the axe, in felling a large tree, when a large lioness approached him. The man, at the moment, gave himself up as lost; but very soon after, he began to perceive that the manner and expression of the animal were mild, and even mournful, and that he had no danger to apprehend from her. She first looked at him, and then behind her, and upwards into the trees, then went a few paces from him upon the path by which she had come; and then returned, and went again; and acted much as a dog would, that wished you to follow him. The seaman yielded to her obvious desire, and she led him some little distance, till, near the foot of a tall tree, she stopped, and looked up, with plaintive cries, into its branches. The sailor, thus directed, looked into the tree, and soon discovered at a considerable height, an immense ape, dandling and playing with a cub lion, which he

had carried thither for his amusement ! The wants and wishes of the lioness were now easily understood.

The lion species, though usually reckoned among the species of cat, differs absolutely from it in this as in many other particulars, that it cannot ascend a tree, a distinction, which ought to satisfy us at once of the error of those who talk to us of lions in America, where, in reality, there is no lion, and where the *puma* and *jaguar*, which they call lions, so readily ascend trees. But equally in vain would it have been for the sailor to climb after the cub, for the ape would have enjoyed the frolic, by leaping with its prey from branch to branch ; so the only chance was, to apply the axe at the bottom of the tree. To work, therefore, he went, the lioness, which had seen other trees felled by the axe of the stranger, standing by, and impatiently awaiting the event. The ape kept his seat till the tree fell, and then fell with it ; and the lioness, the moment the robber reached the ground, sprang upon him with the swiftness and sureness of a cat springing upon a mouse, killed him, and then taking her cub in her mouth, walked contentedly away from the benefactor, to whose skill and friendly assistance she had made her appeal !

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## LESSON III.

## GREAT WALL OF CHINA.

Stupendous	perseverance	rampart
northern	conducted	employed
boundary	elevation	foundations
masterpiece	important	materials
industry	bastion	remarkably
genius	computed	emperor

THIS stupendous wall, which extends across the northern boundary of the Chinese empire, is the greatest masterpiece of industry, genius, and perseverance. It is conducted over the summits of high mountains, several of which have an elevation of not less than 5,225 feet, (nearly a mile), across deep valleys, and over wide rivers, by means of arches. In many parts it is doubled or trebled, to command important passes; and, at the distance of nearly every hundred yards, is a tower or massive bastion. Its extent is computed at 1500 miles; but in some parts, where less danger is apprehended, it is not equally strong or complete, and, towards the north-west, consists merely of a strong rampart of earth. Near Koopekoo, it is twenty-five feet in height, and at the top, about fifteen feet thick: some of the towers, which are square, are forty-eight feet high, and about forty feet wide. The stone employed in the foundations, angles, &c., is a strong grey granite; but the materials, for the greater part, consist of bluish bricks, and the mortar is remarkably pure

and white. It was built, according to Du Halde, by the emperor Chien-Chu-Toang, about 221 years before Christ. Although it has been built upwards of 2000 years, it yet remains quite firm and compact.

SMITH'S WONDERS.



## LESSON IV.

### THE CORK TREE.

Spain	charred	completely
removed	exportation	aperture
longitudinal	principal	buoyant
extremities	elasticity	construction
incisions	inserted	preparing
slightly	tendency	cork-cutters

CORK is the bark of a kind of oak, growing chiefly in Spain. When it is to be removed from the tree, a longitudinal slit is cut, at the extremities of which, incisions are made round the trunk; it can then be stripped off with great ease, by means of a curved knife, with a handle at both ends. When the bark is taken from the tree, it is piled up in a ditch or pond, and heavy stones are placed upon it, in order to flatten it. After being dried, it is slightly burnt or charred, and then packed for exportation. One principal use of cork is to stop bottles, for which purpose it is fitted by its elasticity. A piece rather larger than the neck

of the bottle being inserted, the tendency it has to resume its former shape causes it completely to fill up the aperture, and exclude the air. Its buoyant effect in water, arising from its lightness, renders it useful to those who are learning to swim; for the same reason it is employed in the construction of life-boats, and for the floats of fishing nets. The Spaniards make lamp-black of it. The men employed in cutting and preparing it for sale, are called cork-cutters.

MAYO.



## LESSON V.

### WHANG, THE MILLER.

Naturally	frugality	affluence
avaricious	intervals	discontinued
acquainted	contemplate	assiduity
intimate	satisfaction	concerted
mentioned	acquisition	circumstance
eagerness	possessed	undermined

WHANG, the miller, was naturally avaricious; nobody loved money better than he, or more respected those who had it. When people would talk of a rich man in company, Whang would say, "I know him very well; he and I have been long acquainted; he and I are intimate." But if ever a poor man was mentioned, he had not the least knowledge of the man: he might be very well for

aught he knew; but he was not fond of making many acquaintances, and loved to choose his company. Whang, however, with all his eagerness for riches, was poor. He had nothing but the profits of his mill to support him; but though these were small, they were certain: while it stood and went, he was sure of eating; and his frugality was such, that he every day laid some money by, which he would at intervals count and contemplate with much satisfaction. Yet still his acquisitions were not equal to his desires; he only found himself above want, whereas he desired to be possessed of affluence. One day, as he was indulging these wishes, he was informed that a neighbour of his had found a pan of money under ground, having dreamed of it three nights running before. These tidings were daggers to the heart of poor Whang. "Here am I," says he, "toiling and moiling from morning till night for a few paltry farthings, while neighbour Thanks only goes quietly to bed, and dreams himself into thousands before morning. O that I could dream like him! With what pleasure would I dig round the pan! how slyly would I carry it home! not even my wife should see me: and then, O the pleasure of thrusting one's hand into a heap of gold up to the elbow!" Such reflections only served to make the miller unhappy: he discontinued his former assiduity; he was quite disgusted with small gains, and his customers began to forsake him. Every day he repeated the wish, and every night laid himself down in order to dream. Fortune, that was for a



long time unkind, at last, however, seemed to smile on his distresses, and indulged him with the wished-for vision. He dreamed, that under a certain part of the foundation of his mill there was concealed a monstrous pan of gold and diamonds, buried deep in the ground, and covered with a large flat stone. He concealed his good luck from every person, as is usual in money-dreams, in order to have the vision repeated the two succeeding nights, by which he should be certain of its truth. His wishes in this also were answered; he still dreamed of the same pan of money in the very same place. Now, therefore, it was past a doubt: so getting up early the third morning, he repaired alone, with a mattock in his hand, to the mill, and began to undermine that part of the wall which the vision directed. The first omen of success that he met was a broken ring; digging still deeper, he turned up a house-tile, quite new and entire. At last, after much digging, he came to a broad flat stone, but then so large that it was beyond man's strength to remove it. "There!" cried he in raptures to himself; "here it is; under this stone there is room for a very large pan of diamonds indeed. I must e'en go home to my wife, and tell her the whole affair, and get her to assist me in turning it up." Away, therefore, he goes, and acquaints his wife with every circumstance of their good fortune. Her raptures on this occasion may easily be imagined: she flew round his neck and embraced him in an ecstasy of joy; but these transports, however, did not allay their eagerness to

know the exact sum ; returning, therefore, together to the same place where Whang had been digging, there they found—not, indeed, the expected treasure—but the mill, their only support, undermined and fallen !

GOLDSMITH.



## LESSON VI.

### THE LEOPARD AND PANTHER.

Leopard	numerous	parasol
distinguished	confluence	astonishment
species	irregular	naturalist
gracefulness	fawn-coloured	opinion
elegance	antelope	predominate
vividness	umbrella	independent

THE Leopard is an inhabitant of the woods of Africa and southern Asia. The usual length of his body is three feet, of his tail, two feet three inches, and his height somewhat more than two feet. He is distinguished from all other species by his gracefulness and elegance ; by the vividness of his colouring, yellow on the upper parts, white on the breast, belly, and inside of the limbs ; and the beauty of his markings, which consist of numerous rows of large rose-like spots passing along the sides, each formed of the confluence of several smaller black spots, into an irregular circle, enclosing a fawn-coloured centre : his whiskers are long and white. His prey consists of antelopes, hares, and monkeys, which last he pursues up the trees.

When famished, he will attack, but by stealth, the human race. He may be tamed, but can never be entirely trusted. A female leopard in the Tower, 1829, allowed herself to be patted by her keepers, but discovered a strange propensity for snatching umbrellas, parasols, hats, muffs, and other articles of dress, and tearing them in pieces, to the great astonishment of the plundered visitors. The male was sullen and savage.

The Panther is classed with the leopard ; but as yet it is not decided by naturalists, whether it is to be considered a distinct species, or only a larger variety of the same, though the former opinion appears to predominate. The panther is found chiefly, if not solely, in Africa ; is more than six feet in length, independent of the tail, which is about three. Major Denham killed one that measured more than ten. He is spotted like the leopard, but the colours of his skin are not so brilliant. His habits are similar to those of the tiger.

AIKMAN'S ANIMAL KINGDOM.



## LESSON VII.

ARGUMENTS FOR THE LOVE OF GOD DERIVED  
FROM CREATION.

AND ask ye why he claims our love ?

O answer, all ye winds of even,

O answer, all ye lights above,

That watch in yonder dark'ning heaven ;

Thou, earth, in vernal radiance gay  
 As when his angels first arrayed thee,  
 And thou, O deep-tongued ocean, say,  
 Why man should love the mind that made thee.

There's not a flower that decks the vale,  
 There's not a beam that lights the mountain,  
 There's not a shrub that scents the gale,  
 There's not a wind that stirs the fountain,  
 There's not a hue that paints the rose,  
 There's not a leaf around us lying,  
 But in its use or beauty shows  
 True love to us, and love undying.

For in the past, ere time began,  
 Ere first the new-made sun ascended,  
 Or light illumed the world, and man  
 Arose amid the order splendid ;  
 Even then, for thee, that bounteous mind,  
 Unasked amid the wide creation,  
 In far futurity designed  
 Thy dwelling fast and lasting station.

And seek we arguments of love,  
 And ask we who he is that claims it ?  
 Mark yonder sun that rolls above,  
 Obedient to the will that aims it ;  
 Go watch, when treads the silent moon  
 Her maiden path o'er earth and ocean,  
 Or see yon host at starry noon  
 Roll onward with majestic motion.

Are these not lovely? Look again,  
 Count every hue that clothes the valley,  
 Each grain that gilds the autumn plain,  
 Each song that wakes the vernal alley.  
 All that in fruit or flower is found  
 To win the taste, or charm the vision,  
 All—all that sight, or scent, or sound,  
 Or feeling hath of joy elysian ;

That calm that lulls the noontide hour,  
 The mild repose of power appalling,  
 The rain that feeds each opening flower,  
 Like mercy's tear-drops sweetly falling ;  
 Those show what our Creator was,  
 While man preserved his early duty,  
 What still to those, his later laws  
 Who keep, in all their stainless beauty.

G. GRIFFIN.

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## LESSON VIII.

### THE BANKS OF THE SAVANNAH.

|            |              |             |
|------------|--------------|-------------|
| Savannah   | variety      | transient   |
| Augusta    | beautiful    | plantations |
| exceptions | specimen     | alligator   |
| appearance | towering     | tropical    |
| atmosphere | intermingled | exhalations |
| botanical  | flowering    | pestilence  |

THERE is little variety on the banks of the Savannah. To Augusta, with very few exceptions, they are low, and thickly wooded with oak, gum,

cypress, pine, and the cotton tree. You must not mistake this for the cotton plant. The plant seldom grows over two or three feet; the tree will, upon the river side, shoot up five, and sometimes ten feet in a year, until it makes sixty feet, often one hundred and twenty. It throws off a sort of useless down, that has the appearance of cotton: the atmosphere is filled with it in some places, having the appearance of light snow, thinly falling. Besides these, willows of both kinds may be seen: and, when the boat stops at a landing, you will find a great botanical variety in the under-growth. I have sometimes, within an area of a few acres, collected twenty beautiful specimens in twenty minutes, one of which is a very pretty cherokee rose. The perfume of the blooming magnolia is, at a distance, refined and delicate, but it is too strong for use at a near approach: the dogwood is also covered with a beautiful white flower, like a thin rose: the magnolia is high and towering in many instances. The dogwood is not often over twenty feet, seldom so high: intermingled with these, you will perceive a variety of flowering vines, the sweetest of which, decidedly, is the jessamine; but, like most of the sweets of life, it is very transient. A few plantations will exhibit to you Indian corn, which has an appearance of strength, richness, and verdure, on the low grounds; and cotton, and mounds or hillocks of sweet potatoes. Cane brakes also are found in several places. On the other hand, the decaying trunks of great trees disfigure the land, and they float upon the surface

of the muddy river, and drift against the banks. In the midst of these, you may frequently see the alligator watching for his prey, or sleeping in the burning rays of an almost tropical sun; and in the summer, the exhalations of the swamps breed pestilence; thus blending the goods and the ills, the enjoyments and the miseries of life.

DR. ENGLAND.



## LESSON IX.

### CHRISTIAN FORTITUDE.

|            |              |            |
|------------|--------------|------------|
| Condemned  | barbarians   | persecuted |
| domestics  | gratified    | martyrdom  |
| prostrated | idolatrous   | obstinacy  |
| crucified  | sovereign    | persuasion |
| companions | intimidation | adjoining  |
| exclaimed  | alternately  | admiration |

JORAM MACATA, a noble Christian of Japan, being condemned to death on account of his religion, bade a last and mournful farewell to his wife, his children, and his domestics, and exhorted them to seek their safety in flight. As soon as he was alone, he prostrated himself before a figure of his crucified Lord, and there continued in fervent prayer. Evening approached, and with it came two hundred armed men to execute the sentence of his death. They came thus prepared, as they expected to encounter the numerous friends of Macata, assembled to protect him, or to die in his

defence. For a long time they remained drawn up around the house, wondering at the lonely silence that reigned there, till, at length, one of the party entered, and finding all abandoned, returned to his companions and said, "Macata has fled!" But he, at that moment appearing, exclaimed aloud, "Macata has not fled—he is here, and impatient for the happiness to die for Jesus Christ." The barbarians rushed upon him, and gratified his longings by severing his head from his body.

Again, let us open the history of the same age and nation. Titus, a virtuous Christian of Bungo, had been tempted by his idolatrous sovereign to abandon his faith in Jesus Christ. Promises and intimidation were alternately employed, but in vain. He was then commanded to surrender his young son, Matthew, to the will of his prince. Amidst threats and allurements, the youthful confessor remained steadfast in the profession of his religion; and after two days, it was told to the persecuted father, that his tender child had died by the hand of the executioner. But another victim must be sacrificed to the offended deities of Japan. His virgin daughter, Martina, is demanded for the offering. "Hasten to the king, my child," says the heroic father, "and tell him, that virtue is not measured by years, and that faith knows no distinction between sex or age." The messenger of glad tidings soon returned, bearing information that Martina had followed her brother, and that the eldest son, Simon, was then expected. Simon followed in the path in which his brother



and sister had walked to martyrdom, and betrayed no feelings of sorrow or of fear. A few days passed by, and another messenger came to this Christian Job, to announce to him that his eldest son had paid with his life for his obstinacy, and that a similar fate was impending over him and his consort, should they determine to persevere in their impiety. They were then summoned to the presence of the monarch, and when all the arts of persuasion, and the terrors of a cruel death, were found of no effect, the king threw open the door of an adjoining apartment, and led forth their two sons and daughter to the enraptured parents, declaring to his princes and nobles, that such generous self-devotion merited his highest admiration.

VEITH.



## LESSON X.

### ICE-ISLANDS AND ICEBERGS OF SPITZBERGEN.

|             |               |              |
|-------------|---------------|--------------|
| Spitzbergen | resembling    | collision    |
| Greenland   | approximation | latitude     |
| quantity    | phenomenon    | unspeakable  |
| tremendous  | aggregate     | mountainous  |
| navigators  | continual     | inaccessible |
| congealed   | gradually     | precipitate  |

THE name of *ice-islands* is given by sailors to a great quantity of ice collected into one huge mass, and floating upon the seas near or within the polar circles. Many of these are to be met with on the

coast of Spitzbergen, to the great danger of the shipping employed in the Greenland fishery. In the midst of these tremendous masses, navigators have been arrested in their career and frozen to death. The forms assumed by the ice in this chilling climate are pleasing to the most incurious eye.

The surface of that which is congealed from the sea-water is flat, even, hard, and opaque, resembling white sugar, and incapable of being slid on. The greater pieces, or fields, are many leagues in length; the lesser are the meadows of the seals, on which, at times, those animals frolic by hundreds. The approximation of two great fields produces a most singular phenomenon; they force smaller pieces out of the water, and add them to their own surface, till at length, the whole forms an aggregate of tremendous height. They float in the sea like so many rugged mountains, and are sometimes five or six hundred yards thick, the far greater part of which is concealed beneath the water. Those which remain in this frozen climate receive continual growth; others are by degrees wafted into southern latitudes, and melt gradually by the heat of the sun, till they waste away, and disappear in the boundless element. The collision of the great fields of ice in high latitudes, is often attended with a noise that, for a time, takes away the sense of hearing anything else, and that of the smaller, with a grinding of unspeakable horror. The water which dashes against the mountainous ice, freezes into an infinite variety of forms, and

gives the voyager ideal towns, streets, churches, steeples, and every shape which imagination can frame.

Besides the fields of ice in high latitudes, there are *icebergs*, as they are called, or large bodies of ice, that fill the valleys between the high mountains in northern latitudes. Among the most remarkable are those of the east coast of Spitzbergen. They are seven in number, at considerable distances from each other: each fills the valleys, for tracts unknown in a region totally inaccessible in the interior parts. The first exhibits a front three hundred feet high, emulating the emerald in its green colour: cataracts of melted snow precipitate down various parts, and blocked spiry mountains, streaked with white, bound the sides, and rise, crag above crag, as far as the eye can reach in the back ground.

GOLDSMITH.



## LESSON XI.

### THE LOCUST.

|             |               |              |
|-------------|---------------|--------------|
| Ravages     | inevitable    | putrefaction |
| proverbial  | consequence   | contagious   |
| innumerable | lamentable    | frequently   |
| myriads     | vegetation    | provisions   |
| prophetic   | comparatively | destroyed    |
| visitation  | obliterate    | unpalatable  |

THE locust is that destructive insect whose ravages are proverbial—whose approach, from the in-

numerable myriads that compose their squadrons, is announced in prophetic language as a day of darkness and gloominess—a day of clouds and of thick darkness; and whose desolating march is thus described: “The land is as the garden of Eden before them, and behind them a desolate wilderness; yea, and nothing shall escape them.” The visitation of a few minutes destroys the husbandman’s hope of the year, and a famine is always the inevitable consequence. In the tropical climates, however, their presence is not attended with such lamentable consequences as in the south of Europe: there the power of vegetation is so rapid and strong, that a comparatively short interval only is required to repair the damage; but in Europe, a year at least is requisite to obliterate their footsteps. Sometimes a strong wind brings deliverance from the pest, and the shores of the Mediterranean have been covered for miles with their dead carcasses; but even then they are not innoxious, for the stench arising from their putrefaction is apt to occasion contagious diseases.

The locust is about three inches long, and has two feelers, each an inch in length; the upper wings are brown, with small dusky spots; the under side purple. The natives of the countries where they most frequently appear, roast and eat them, and in some cases pickle and preserve them, as a small wretched substitute for the better provisions they have destroyed. There are reckoned upwards of two hundred species, of which several are used by the natives of Africa and India as ordinary food, and are said, not to be unpalatable.

## LESSON XII.

## THE BUTTERFLY'S BIRTH-DAY.

THE shades of night were scarcely fled ;  
 The air was mild, the winds were still ;  
 And slow the slanting sunbeams spread  
 O'er wood and lawn, o'er heath and hill.

From fleecy clouds of pearly hue  
 Had dropt a short but balmy shower,  
 That hung like gems of morning dew  
 On ev'ry tree and ev'ry flower.

And from the blackbird's mellow throat  
 Was pour'd so loud and long a swell,  
 As echoed with responsive note  
 From mountain side and shadowy dell :

When bursting forth to life and light,  
 The offspring of enraptur'd May,  
 The butterfly, on pinions bright,  
 Launch'd in full splendour on the day.

Unconscious of a mother's care,  
 No infant wretchedness she knew ;  
 But as she felt the vernal air,  
 At once to full perfection grew.

Her slender form, ethereal light,  
 Her velvet-textur'd wings unfold ;  
 With all the rainbow's colours bright,  
 And tipped with spots of burnish'd gold.



Trembling with joy awhile she stood,  
 And felt the sun's enlivening ray ;  
 Drank from the skies the vital flood,  
 And wonder'd at her plumage gay !

And balanc'd oft her 'broider'd wings,  
 Through fields of air prepar'd to sail,  
 Then on her vent'rous journey springs,  
 And floats along the rising gale.

Go, child of pleasure, range the fields,  
 Taste all the joys that spring can give,  
 Partake what bounteous summer yields,  
 And live whilst yet 'tis thine to live.

Go, sip the rose's fragrant dew,  
 The lily's honey'd cup explore,  
 From flower to flower the search renew,  
 And rifle all the woodbine's store.

And let me trace thy vagrant flight,  
 Thy moments too of short repose,  
 And mark thee then with fresh delight,  
 Thy golden pinions ope and close.

But hark ! whilst thus I musing stand,  
 Pours on the gale an airy note,  
 And breathing from a viewless band,  
 Soft silv'ry tones around me float !

They cease—but still a voice I hear,  
 A whisper'd voice of hope and joy,  
 " Thy hour of rest approaches near,  
 Prepare thee, mortal !—thou must die !

- “ Yet start not ! on thy closing eyes  
 Another day shall still unfold,  
 A sun of milder radiance rise,  
 A happier age of joys untold.
- “ Shall the poor worm that shocks thy sight,  
 The humblest form in nature’s train,  
 Thus rise in new-born lustre bright,  
 And yet the emblem teach in vain ?
- “ Ah ! where once her golden eyes,  
 Her glitt’ring wings of purple pride ?  
 Conceal’d beneath a rude disguise,  
 A shapeless mass to earth allied.
- “ Like thee, the hapless reptile liv’d,  
 Like thee he toil’d, like thee he spun,  
 Like thine his closing hour arriv’d,  
 His labour ceas’d, his web was done.
- “ And shalt thou, number’d with the dead,  
 No happier state of being know ?  
 And shall no future morrow shed,  
 On thee a beam of brighter glow ?
- “ Is this the bound of power divine,  
 To animate an insect frame ?  
 Or shall not He who moulded thine,  
 Wake at his will the vital flame ?
- “ Go, mortal ! in thy reptile state,  
 Enough to know to thee is given ;  
 Go, and the joyful truth relate ;  
 Frail child of earth ! high heir of heaven.”

A.

## LESSON XIII.

## THE COFFEE TREE.

|             |           |            |
|-------------|-----------|------------|
| Cultivated  | together  | separated  |
| Bourbon     | tegument  | exposed    |
| convenience | enclosing | underneath |
| gathering   | another   | traveller  |
| jessamine   | usually   | profession |
| opposite    | eighteen  | introduced |

THE coffee tree is cultivated in Arabia, Persia, the East Indies, the Isle of Bourbon, and several parts of America. The plant, if left to itself, would rise to the height of sixteen or eighteen feet, but it is generally stunted to five, for the convenience of gathering its fruit with greater ease. Thus dwarfed, it extends its branches so, that it covers the whole spot round about it. It begins to yield fruit the third year, but is not in full bearing till the fifth. It is covered with a grey smooth bark, and shoots out through the whole length of its stem, a growth of branches, which are always opposite to each other, arranged in pairs in the same manner. From the bottom of the leaves spring fragrant white flowers, very much like those of the jessamine; and when the flowers or blossoms drop off, they leave a small fruit behind, which is green at first, but reddens as it ripens, and is like a hard cherry, both in shape and colour. Two, three, or more of these berries, grow together on the same part of the twig, each coated with a husk or tegument, enclosing



another and finer skin, in which two seeds or kernels are contained, which are what we call coffee.

The fruit is usually gathered in May, which is done by shaking the trees, the berries falling on cloths, spread underneath to receive them. These being laid on mats to dry in the sun, the outer husks are opened and separated, by drawing rollers of wood or iron over them; after which, the berries are exposed to the sun a second time, and then sifted clean for use. The husks, however, are not wasted, for the Arabs roast them, as we do the berries, and the drink made of them, having a little tartness, is cooling and pleasant in the heat of summer. The drink made of coffee-berries has been common in Europe above a hundred years, and much longer among the Turks. Coffee was first brought into France, by the famous traveller, M. Thevenot; and a Greek, called Pasqua, who was brought to England as a servant in 1632, first set up the profession of a coffee-house keeper, and introduced the use of the liquor among us.

The medicinal qualities of coffee seem to be derived from the grateful sensation which it produces in the stomach. Hence, it assists digestion, and relieves the head-ache; and is taken in large quantities, with peculiar propriety, by the Turks and Arabians; because it counteracts the narcotic effects of opium, to the use of which those nations are much addicted. In these countries, coffee is not only used at breakfast, but, very commonly, after dinner.

#### VEGETABLE PRODUCTIONS.

## LESSON XIV.

## ADHERENCE TO TRUTH.

|             |             |               |
|-------------|-------------|---------------|
| Qualities   | accordingly | simplicity    |
| universal   | endeavoured | acknowledging |
| sensibly    | afternoon   | committing    |
| mortified   | sincerity   | generosity    |
| immediately | occasion    | indiscretion  |
| majesty     | ridiculous  | justified     |

THE duchess of Longueville, whose great qualities merited for her universal esteem, being unable to obtain from Lewis XIV a favour which she particularly requested, was so sensibly mortified, as to let fall some expressions of disrespect. The only one who heard her, related them to the king, who immediately spoke on the subject to the Great Condé, brother to the duchess. The prince assured his majesty, that his sister never could have spoken in those terms if she had not lost her senses. "Well," said Lewis, "I shall believe herself, if she say the contrary." The prince accordingly went to his sister, who owned the entire. He endeavoured in vain, for a whole afternoon, to persuade her, that her usual sincerity, on such an occasion, would be nothing better than ridiculous simplicity; that he, in justifying her in the king's eyes, had believed he spoke truth; and that, at all events, she would please his majesty better by denying, than by acknowledging her fault. "Do you wish," said the duchess, "that I should endeavour to repair one fault, by committing a still

greater one, and that not solely against the king ? I cannot prevail on myself to deceive him, when he has the generosity to depend on my word. He who betrayed me, acted unkindly, but I will not make him pass for a calumniator, as in reality he is not such." She went the following day to the court, threw herself at the king's feet, avowed her indiscretion, and assured him, that she would much rather own the fault, than be justified at the expense of another. Lewis XIV, by an act equally heroic, not only pardoned her from his heart, but granted her other favours she had not expected, and treated her ever after with the utmost distinction and goodness.

L'ECOLE DES MŒURS.



## LESSON XV.

### MANUFACTURE OF PINS.

|              |             |              |
|--------------|-------------|--------------|
| Commodity    | sufficient  | acquired     |
| continual    | operation   | spectator    |
| successively | astonishing | apprehension |
| velocity     | distributed | finished     |
| diameter     | extremity   | solution     |
| straightened | dexterity   | winnowing    |

THERE is hardly any commodity cheaper than pins, yet few articles pass through more hands before they come to be sold. It is reckoned, that twenty-five persons are successively employed in making each pin, between the drawing of the brass

wire and sticking the pin into the paper. When the brass wire, of which the pins are to be formed, is first received, it is generally too thick for the purpose of being cut into pins; it is therefore wound off from one wheel to another, with great velocity, and made to pass between the two, through a circle in a piece of iron, of small diameter. The wire is then straightened, and afterwards cut into lengths of three or four yards, and then into smaller ones, every length being sufficient to make six pins. Each end of these is ground to a point, which is performed by a boy, who sits with two small grinding stones before him, turned by a wheel. Taking up a handful, he applies the ends to the coarser stones, being careful at the same time to keep each piece moving round between his fingers, so that the points may not become flat; he then applies them to the other stone; by these means, a boy of twelve or fourteen years of age, is enabled to point about sixteen thousand pins in an hour. When the wire is thus pointed, a pin is taken off from each end, and this is repeated till it is cut into six pieces. The next operation is that of forming the heads, or, as it is called, *head-spinning*, which is done by means of a spinning-wheel, one piece of wire being thus wound round another with astonishing quickness, and the inner one being drawn out, leaves a hollow tube: it is then cut with shears, every two turns of the wire forming one head; and these are softened by being thrown into iron pans, and placed in a furnace till they are red hot. As soon as they are

cool again, they are distributed to children, who sit with anvils and hammers before them, which they work with their feet by means of a lathe, and taking up one of the lengths, they thrust the blunt end into a quantity of the heads that lie before them; and catching one at the extremity, they apply it immediately to the anvil and hammer, and by a motion or two of the foot, the point and the head are fixed together, in much less time than would be required to describe it, and with a dexterity only to be acquired by practice, the spectator being in continual apprehension for the safety of their fingers' ends. The pin is now finished as to its form, but still it is merely brass, and has yet to be coloured; for which purpose it is thrown into a copper, containing a solution of tin and the lees of wine: here it remains for some time, and, when taken out, it assumes a white, though dull appearance. To give it a polish, it is put into a tub containing a quantity of bran, which is set into motion by turning a shaft that runs through its centre, and thus, by means of friction, it becomes perfectly bright. The pin being complete, nothing remains but to separate it from the bran, which is performed by a mode exactly similar to that of winnowing corn; the bran flying off, and leaving the pins behind, fit for immediate sale.

BOOK OF TRADES.

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## LESSON XVI.

## MANUFACTURE OF NEEDLES.

Cylindrical	tempered	disposed
wire-drawing	remaining	gradually
reduced	brittleness	moistened
intended	polishing	suspended
flattened	sprinkled	proportion
softened	emery-dust	remaining

THE first process in making needles is, to pass the steel through a coal fire, and, by means of a hammer, to bring it into a cylindrical form. After this is done, the steel is drawn through a large hole of a wire-drawing iron, and then returned into the fire, and drawn through a second hole of the iron, smaller than the first, and so on, till it has acquired the degree of fineness required. The steel being thus reduced to a fine wire, is cut into pieces of the length of the needles intended. The pieces are flattened at one end on an anvil, in order to form the head and eye ; they are then softened, and pierced at each extreme of the flat part, on the anvil, by a punch of well-tempered steel, and laid on a leaden block, to bring out, with another punch, the small piece of steel remaining in the eye. When the head and eye are finished, the point is formed with a file, and the whole is filed over. The needles are then laid, to heat red-hot, on a long narrow iron, crooked at one end, in a charcoal fire ; and when taken out again, they are thrown

into a basin of cold water to harden. They are next placed in an iron shovel, on a fire, more or less brisk in proportion to the thickness of the needles, taking care to move them from time to time. This serves to temper them, and take off their brittleness. They are now straightened, one after another, with a hammer. The next process is the polishing. To do this, fifteen thousand needles are taken, and ranged in small heaps against each other, on a piece of new buckram, sprinkled with emery-dust. When the needles are thus disposed, emery-dust is thrown over them, which is again sprinkled with oil of olives, and at last the whole is made up into a roll, well bound at both ends. This roll is laid on a polishing table, and over it a thick plank, loaded with stones, which men work backward and forward for two whole days, by which means the needles become gradually polished. After this they are taken out, and the filth is washed off with hot water and soap. They are then wiped in hot bran, a little moistened, which is placed with the needles in a round box, suspended in the air by a cord, and kept stirring till the bran and needles are dry. The needles are afterwards sorted; the points turned one way, and smoothed with an emery-stone, turned by a wheel. This is the end of the process; nothing further remaining to be done, but to make them up in packets of 250 each.

BOOK OF TRADES.



## LESSON XVII.

## FIRST COMMUNION.

Solemnly	community	devotion
catechumens	experience	countenances
innocence	communion	demeanour
rational	allotted	infantine
salvation	seclusion	amiable
baptismal	relatives	semicircle

To this union with Christ, on the Sunday, which we call White Sunday, those children are solemnly admitted, whose childhood is drawing towards its close, and who are approaching the period of youth. White Sunday, (Low Sunday), is this day called, because, in the first ages of the Church, the catechumens, who were baptised on Holy Saturday, put on, on that day, as signs of innocence, white garments, and wore them until the Sunday after Easter. To this, the Introit, on this Sunday, alludes in the following words, taken from the First Epistle of St. Peter: "As new-born babes, desire the rational milk without guile, that thereby you may grow unto salvation." This is the reason why, on Low Sunday, the children are not only admitted for the first time to the table of their Lord, but are made solemnly to renew their baptismal vows in the presence of the whole community.

What an all-important, beautiful, and never-to-be-forgotten day is this, thou knowest, dear youth,



too well from thine own experience, to render it necessary for me to draw your attention to the subject ; and if I now refer to it, it is to excite in our mutual breasts a reminiscence of early feelings ; for our whole life should be a continuation of the Sunday of our first communion.

For a long period prior to this event, has the pastor prepared the youth for this two-fold solemnity. In some places, as at Rome, the children spend the last ten days in a monastery allotted for the purpose, in order, that, living there in seclusion from the world, from their parents and relatives, they may devote themselves to meditation, and to serious preparation for the solemn event which is to occur. At last arrives the expected day. Early the church bell gives the signal. The children assemble in the school-house ; and thence, each sex apart, they proceed under the conduct of their teachers to the church. This is a highly affecting spectacle : the boys are clothed alike ; so are the girls ; the latter being mostly clad in white dresses, simple, beautiful, and modest. But the most beautiful and touching of the whole is, the expression of devotion in their countenances ; the piety manifested in their gait, look, and demeanour. As they approach the church, their delicate infantine voices pour forth a hymn ; and as they enter singing, the organ strikes up its sweetest notes, accompanied by a chorus, of the clearest, but withal, the tenderest harmony, like an angelic salutation from above. Then the community joins in saluting the young members, now admitted into its bosom. At the

altar, the priest stands awaiting them, robed in a long white vestment, and wearing his stole. He, also, salutes them with amiable dignity, and, after they have formed themselves in a semicircle round the altar, he calls their attention, in words, few, but persuasive and strong, to the important action which they are about to solemnize.

STUDENMAIER.



## LESSON XVIII.

INNISFALLEN.

SWEET Innisfallen, fare thee well,  
 May calm and sunshine long be thine !  
 How fair thou art, let others tell,  
 While but to feel how fair is mine !

Sweet Innisfallen, fare thee well,  
 And long may light around thee smile,  
 As soft as on that evening fell,  
 When first I saw that fairy Isle.

Thou wert too lovely then, for one  
 Who had to turn to paths of care,  
 Who had through vulgar crowds to run,  
 And leave thee bright and silent there.

No more along thy shores to roam,  
 But on the world's dim ocean tost,  
 Dream of thee sometimes, as a home  
 Of sunshine, he had seen and lost.

Far better in thy weeping hours,  
 To part from thee as I do now,  
 When mist is o'er thy blooming bowers,  
 Like sorrow's veil on beauty's brow.

For tho' unrivall'd still thy grace,  
 Thou dost not look, as then, too blest,  
 But in thy shadows, seem'st a place  
 Where weary man might hope to rest—

Might hope to rest, and find in thee,  
 A gloom like Eden's on the day  
 He left its shade, when every tree,  
 Like thine, hung weeping o'er his way.

Weeping or smiling, lovely Isle !  
 And still the lovelier for thy tears—  
 For tho' but rare thy sunny smile,  
 'Tis heaven's own glance when it appears.

Like feeling hearts, whose joys are few,  
 But when indeed they come, divine—  
 The steadiest light the sun e'er threw  
 Is lifeless to one glance of thine.

MOORE.



## LESSON XIX.

## CHURCH OF OUR LADY, NEAR BOLOGNA.

Bologna	portico	ornaments
Corinthian	voluntary	neighbouring
Apennines	contribution	unparalleled
peculiar	pecuniary	population
sanctuary	monument	fertility
accommodation	overloaded	adjacent.

THIS church stands on a high hill, about five miles from Bologna. It is in the form of a Greek cross, of the Corinthian order, and crowned with a dome. As the people of Bologna have a peculiar devotion to the Blessed Virgin, and crowds flock from all quarters to visit this, her sanctuary; for their accommodation, in all seasons and in all weather, a portico has been carried from the gates of the city up the hill to the very entrance of the temple, or rather to the square before it. This immense building was raised by the voluntary contributions of persons of every class in Bologna: the richer erected one or more arches, according to their means; the middling classes gave their pecuniary aid in proportion; and the poorest insisted on contributing their labour to the grand undertaking. It is, in reality, a most noble monument of public piety, and alone sufficient to prove, that the spirit and magnificence of the ancient Romans still animate the modern Italians.

The church is of a fine and well-proportioned

form, rich in marbles, but overloaded, as we imagined, with ornaments. It is needless to add, that from such an elevation the view is beautiful; lost on one side in the windings of the neighbouring Apennines, and extending on the other over a plain of immense extent, and unparalleled population and fertility. One circumstance struck us particularly, while on the hill. It was the end of March, the sky was clear, and the weather warm, nearly as it may be on a bright day in England in the month of May; so warm in short, as to render the shade not only pleasing, but desirable; yet, in various parts of the hill, and near the church, the snow lay deep, and in vast masses, still likely to resist, for some time, the increasing warmth of the season; so great is the influence of such mountains as the Alps and Apennines, on the climate of the adjacent countries.

EUSTACE.



## LESSON XX.

### THE TIGER.

Corresponds	Malabar	surrounded
disposition	Bengal	progeny
animal	Portuguese	extravagant
characteristics	inhabited	invader
insatiable	elephant	remainder
undistinguished	rhinoceros	hideous

THE form of the body usually corresponds with the nature and disposition of this animal. The

tiger, with a body too long, with limbs too short, with a head uncovered, and with eyes ghastly and haggard, has no characteristics, but those of the basest and most insatiable cruelty. For instinct he has nothing but a uniform rage, a blind fury; so blind indeed, so undistinguishing, that he frequently devours his own progeny, and, if she offered to defend them, he tears in pieces the dam herself. The tiger is found in Malabar, in Siam, in Bengal, and in all the countries which are inhabited by the elephant and rhinoceros. Dellon, in his travels, assures us, that there is no country in India in which tigers so much abound as Malabar; that there the species are numerous, but that the largest of all is that which the Portuguese call the royal tiger, which is very rare, and is as large as a horse.

The species of the tiger has always been much rarer, and much less generally diffused than that of the lion. Like the lioness, however, the tigress produces four or five young ones at a birth. From her nature she is fierce at all times; but when surrounded with her infant progeny, and in the smallest danger of losing them, her rage and fury become extravagant. To oppose the daring invaders of her den, she pursues the spoiler with an enmity the most inveterate; and he, contented to lose a part in order to save a part, is frequently obliged to drop one of the cubs. With this she immediately returns to her den, and again pursues him: he then drops another; and by the time she has returned with that, he generally

escapes with the remainder. Should her young be torn from her entirely, with hideous cries she expresses her agony, her despair, and follows the captor to the very town or ship in which he may have taken refuge, and dares him, as it were, to come forth.

AIKMAN'S ANIMAL KINGDOM.



LESSON XXI.

PEAK OF TENERIFFE.

Teneriffe	disappointing	towering
Canary	ordinary	sublimely
Britain	arrived	directly
Chimborazo	displayed	contemplation
Himalaya	stupendous	impressive
proceeding	compared	elevated

I ONCE sailed through the Canary Islands, and passed in view of the far-famed Peak of Teneriffe. It had been in sight during the afternoon of the preceding day, at a distance of more than one hundred miles, disappointing general expectation, by appearing then only as an ordinary distant hill rising out of the ocean; but next morning, when the ship had arrived within about twenty miles of it, and while another ship of the fleet, holding her course six miles nearer to the land, served as a measure, it stood displayed as one of the most stupendous single objects, which on earth, and at one view, human vision can command. The ship in question, whose side, showing its tiers of cannon,

equalled in extent the fronts of ten large houses in a street, and whose masts shot up like lofty steeples, still appeared but as a speck rising from the sea, when compared with the huge prominence beyond it, towering sublimely to heaven, and around which the mass of cloud, although as lofty as those which sail over the fields of Britain, seemed still to be hanging low on its sides. Teneriffe alone, of very high mountains, rises directly and steeply out of the bosom of the ocean, to an elevation of 13,000 feet, and as an object of contemplation, therefore, is more impressive than even the still loftier summits of Chimborazo, or the Himalayas, which rise on elevated plains, and in the midst of surrounding hills.

ARNOTT.



## LESSON XXII.

THE TRAVELLER AT THE SOURCE OF THE NILE.

IN sunset's light, o'er Afric thrown,  
 A wanderer proudly stood  
 Beside the well-spring, deep and lone,  
 Of Egypt's awful flood;  
 The cradle of that mighty birth,  
 So long a hidden thing to earth!  
 He heard its life's first murmuring sound,  
 A low, mysterious tone;  
 A music sought, but never found  
 By kings and warriors gone;  
 He listen'd—and his heart beat high—  
 That was the song of victory!



The rapture of a conqueror's mood  
 Rush'd burning through his frame,—  
 The depths of that green solitude  
 Its torrents could not tame ;  
 Though stillness lay, with eve's last smile,  
 Round those far fountains of the Nile.

Night came with stars :—across his soul  
 There swept a sudden change ;  
 E'en at the pilgrim's glorious goal,  
 A shadow dark and strange  
 Breathed from the thought, so swift to fall  
 O'er triumph's hour—*and is this all ?*

No more than this !—what seem'd it now  
 First by that spring to stand ?  
 A thousand streams of lovelier flow  
 Bathed his own mountain land !  
 Whence, far o'er waste and ocean track,  
 Their wild, sweet voices call'd him back.

They call'd him back to many a glade,  
 His childhood's haunt of play,  
 Where brightly through the beechen shade  
 Their waters glanced away ;  
 They call'd him, with their sounding waves,  
 Back to his father's hills and graves.

But, darkly mingling with the thought  
 Of each familiar scene,  
 Rose up a fearful vision, fraught  
 With all that lay between ;  
 The Arab's lance, the desert's gloom,  
 The whirling sands, the red simoom !

Where was the glow of power and pride ?

The spirit born to roam ?

His alter'd heart within him died

With yearnings for his home !

All vainly struggling to repress

That gush of painful tenderness.

He wept—the stars of Afric's heaven

Beheld his bursting tears,

E'en on that spot where fate had given

The meed of toiling years !—

Oh, happiness ! how far we flee

Thine own sweet paths in search of thee !

MRS. HEMANS.



## LESSON XXIII.

### REMARKABLE LAKES.

Portugal	unfathomable	occasionally
Estrella	remarkable	extraordinary
Fervanças	probable	petrifies
Coimbra	subterranean	surprising
Estremos	communicate	perfectly
especially	confirmed	several

ON the top of a ridge of mountains in Portugal, called *Estrella*, there are two lakes of great extent and depth, especially one of them, which is said to be unfathomable. What is chiefly remarkable in them is, that they are calm when the sea is so, and rough when that is stormy. It is, therefore, probable, that they have a subterraneous communication with the ocean ; and this seems to be con-

firmed by the pieces of ships they occasionally throw up, though almost forty miles distant from the sea. There is another extraordinary lake in this country, which, before a storm, is said to make a frightful rumbling noise, that may be heard at the distance of several miles. And we are also told of a pool or fountain, called *Fervanças*, about twenty-four miles from Coimbra, that absorbs not only wood, but even the lightest bodies thrown into it, such as cork, straws, feathers, &c., which sink to the bottom, and are seen no more. To these we may add a remarkable spring near Estremoz, which petrifies wood, or rather incrusts it with a case of stone; but the most surprising circumstance is, that it throws up water enough in summer, to turn several mills, whereas in winter it is perfectly dry.

SMITH'S WONDERS.

## LESSON XXIV.

### INDIAN RUBBER, OR GUM ELASTIC.

America	vegetables	water-proof
Indians	purposes	flexible
hardened	flambeaux	syringes
operations	brilliant	surgeons
repeated	applied	chemists
required	effacing	impregnated

INDIAN rubber is the hardened juice of a tree which grows in South America. It is called the *syringe tree*, and is described, as attaining a very

great height, being, at the same time, perfectly straight, and having no branches except on the top, which is but small, covering no more than a circumference of ten feet. Its leaves bear some resemblance to those of the *manioc*: they are green on the upper part, and white beneath. The seeds are three in number, and contained in a pod, consisting of three cells, not unlike those of the *palma Christi*; and in each of them there is a kernel, which, being stripped and boiled in water, produces a thick oil or fat, answering the purposes of butter in the cookery of that country.

The Indians make incisions through the bark of this tree, chiefly in wet weather; a milky juice oozes out, which is spread over moulds of clay; when the first layer is dry, a second is put over it; this operation is repeated till the indian-rubber is of the thickness required. After this, it is placed over burning vegetables, the smoke of which hardens and darkens it. The natives apply it to various purposes; for water-proof boots, for bottles, and also for flambeaux, which give a very brilliant light, and burn for a great length of time. The principal uses to which indian-rubber is applied here, are the effacing of black-lead marks, for water-proof shoes, for balls, flexible tubes, syringes, and other instruments used by surgeons and chemists. Cloth of all kinds may be made to resist water, if impregnated with the fresh juice of the syringe tree. The bottoms of ships are sometimes sheathed with indian-rubber, cut very thin; it is said to preserve them from the injuries of shell fish.

MAYO.

## SECTION II.

## LESSON I.

## HOLLANDTIDE.

Cheerfully	unpretending	celebrate
rivettèd	repining	silliness
descended	amusements	primitive
fatigue	dissipation	profitably
abstinence	superstition	missionaries
spiritual	customary	anecdotes

ALL was now ready. The "snap-apple" cross was hung up, the fire blazed cheerfully, and every countenance was bright with expectation of the coming mirth, when a knock at the yard door diverted for a moment the attention of all from what was going forward. The door was opened without delay, and a figure entered, on which all eyes were instantly rivettèd. His person was tall and majestic, a long beard, half grey with years, descended upon his breast; his head and feet were bare; in his right hand he carried a staff, while a rosary with beads of an extraordinary size was made fast to a leathern girdle at his side. But there was something in the aspect and demeanour of the stranger, which, even more than the singularity of his dress, arrested the attention of the company, and produced for the moment a pause of respect-

ful silence. His countenance, though pale and worn by fatigue, or the effects of habitual abstinence, had on it a spiritual expression of mildness and peace, that awakened the interest and esteem of the beholder, and his easy, unpretending address, seemed to indicate that he had known what the world calls "better days," although a sentiment of religion prevented all appearance of repining. He appeared like one whose mind was so engrossed by some one prevailing idea, that it required an effort to direct his attention, even for an instant, to any other subject.

"It seems to me, sir," said one of the company, "that our amusements do not afford you much satisfaction." "They do not give me any, sir," replied the stranger. "And pray what great harm do you see in a little innocent amusement of this kind, where it interferes with no duty, and affords no room for vice or criminal dissipation?" "Sir," replied the stranger, "you mistake my disposition, if you think I am an enemy to all innocent amusement. To say nothing of the detested superstitions, there is something in the senseless, unmeaning mummeries customary at this season, which seem to me but ill adapted to do honour to the solemn fast and vigil which we this night celebrate. And apart from this mere silliness, or the evil which they occasion to ignorant minds; I confess I cannot understand how a Christian can esteem it a rational amusement to invoke the aid of an evil spirit even in jest. I know that similar practices would have been regarded in the

primitive church with sentiments 'of horror. One fact, however, cannot be denied, that an evening could be spent quite as amusingly, and much more profitably without them.

“I spent this night twelve-months,” he continued, “in the house of a respectable family in another county, and will tell you how they passed it. The master and mistress had their kitchen crowded with their poor neighbours. They had no snap-apple, nor nuts, nor beans, but they had a good fire, and good books, and they read something that was at the same time amusing and instructive, either from the history of the Church, or the wonderful lives of missionaries in various parts of the globe; or else they conversed freely on some point of Christian doctrine or morals, and sometimes gave interest to the subject by anecdotes and stories; and I assure you, many went home from that Hollandide a great deal better instructed in their religion and its duties than when they came, and by no means discontented, either, on the score of amusement.”

G. GRIFFIN.



## LESSON II.

## THE JOURNEY TO BETHLEHEM.

Nazareth	conveniencies	covenant
Bethlehem	indispensable	enemies
retinue	artisan	miraculous
dependants	solicitude	fulfilment
anticipated	fatiguing	prophecy
gratifications	pilgrimage	manifestation

A little group is seen to advance slowly, from the mean and obscure village of Nazareth, on its way to Bethlehem, the regal city. None of the pride and circumstance of oriental travelling distinguishes its progress: no swelling retinue of menials and dependants surrounds it, to anticipate the wants and minister to the gratifications of their masters; no well-appointed train of camels follow, to convey the provisions and conveniencies, almost indispensable in such a journey. A poor artisan, with affectionate solicitude, alone guides the steps of the humble beast, whereon rides a tender female; apparently unfit, by her situation, to undertake so long and fatiguing a pilgrimage. Where they arrive for the night's repose, no greeting hails them, no curiosity gazes on them; when they depart to renew their toil, no good wishes are heard to cheer and encourage them on their way. Humble, meek, and unpretending, they are passed unsaluted at every step, by the crowds, who, boasting the same descent, scorn to ac-



knowledge them as members of the regal stock, and hasten forward to secure every accommodation, till they leave this tender maid, and her coming offspring, no roof but a stable, and no cradle but a manger.

And yet, not even the ark of the covenant, when it marched forth to victory over the enemies of God, escorted by the array of Levites, and greeted by the plaudits of the assembled nation; not even *it* moved with half that interest to heaven, or half that promise to earth, with which this humble virgin advances, bearing within her bosom, in silence and neglect, the richest work which the Almighty had yet made, and the most miraculous benefit which his wisdom had yet devised. Upon this little group the angels attended, with care more tender than they have for the ordinary just, lest they should dash their foot against a stone: for on its safety depend the fulfilment of prophecy, the consummation of the law, the manifestation of God's truth, and the redemption of the world. In *it* are centred all the counsels of heaven, since the creation of man; for *it* the whole land has been put into movement; and the Roman emperor issued his mandate from the throne of the world, solely, that this maid might be brought to Bethlehem of Juda, in order that from it might come forth, in fulfilment of prophecy, the Ruler who should govern the people of God.

DR. WISEMAN.

## LESSON III.

## HYMN OF THE CITY.

Not in the solitude  
 Alone, may man commune with heaven, or see  
     Only in savage wood  
 And sunny vale, the present Deity ;  
     Or only hear his voice  
 Where the winds whisper, and the waves rejoice.

    Even here do I behold  
 Thy steps, Almighty ! here amidst the crowd.  
     Thro' the great city roll'd  
 With everlasting murmur deep and loud—  
     Choking the ways that wind  
 'Mongst the proud piles, the work of human kind.

    Thy golden sunshine comes  
 From the round heavens, and on their dwelling lies,  
     And lights their inner homes ;  
 For them thou fill'st with air the unbounded skies,  
     And givest them the stores  
 Of ocean, and the harvests of its shores.

    Thy spirit is around,  
 Quickening the restless mass that sweeps along ;  
     And this eternal sound—  
 Voices and footfalls of the numberless throng—  
     Like the resounding sea,  
 Or like the rainy tempests, speaks of thee.

And when the hours of rest  
 Come like a calm upon the mid-sea brine,  
 Hushing its billowy breast ;  
 The quiet of that moment too is thine :  
 It breathes of him who keeps  
 The vast and helpless city while it sleeps.

BRYANT.



## LESSON IV.

### SNOW HOUSES.

Esquimaux	corresponding	erected
habitations	inclination	aperture
constructed	rectangular	construction
comfortable	conical	translucency
commenced	requiring	transmitted
tenacious	facilitating	superior

THE winter habitations of the Esquimaux are built of snow, and, judging from one that I saw constructed the other day, they are very comfortable dwellings. The Esquimaux having selected a spot on the river where the snow was about two feet deep, and sufficiently compact, commenced by tracing out a circle, twelve feet in diameter. The snow in the interior of the circle was next divided with a broad knife, which had a long handle, into slabs three feet long, six inches thick, and two deep. These slabs were tenacious enough to admit of being moved about without breaking, or even losing the sharpness of their angles, and they had a slight degree of curvature, corresponding with

that of the circle from which they were cut. They were piled upon each other exactly like courses of hewn stone, around the circle which had been traced out; and care was taken to smooth the beds of the different courses with the knife, and to cut them, so as to give the wall a slight inclination inwards. The dome was closed somewhat suddenly and flatly, by cutting the upper slabs in a wedge-form, instead of the more rectangular shape of those below. The roof was about eight feet high, and the last aperture was shut up by a small conical piece. The whole was built from within, and each slab was cut so, that it retained its position without requiring support, until another was placed beside it, the lightness of the slabs greatly facilitating the operation. When the building was covered in, a little loose snow was thrown over it, to close up every chink, and a low door was cut through the wall with the knife. A bed place was next formed, and neatly faced up with slabs of snow, which were then covered with a thin layer of fine branches, to prevent them from being melted by the heat of the body. At each end of the bed, a pillar of snow was erected, to place a lamp upon; and lastly, a porch was built before the door, and a piece of clear ice was placed in an aperture cut in the wall, for a window. The purity of the material of which the house was framed, the elegance of its construction, and the translucency of its walls, which transmitted a very pleasant light, gave it an appearance far superior to a marble building.

CAPTAIN FRANKLIN.

## LESSON V.

## FOUNDATIONS OF KNOWLEDGE.

Recognised	understands	chemistry
resemblances	perception	physiology
relations	physical	arithmetic
conceptions	gravity	geometry
mineral	inertia	arbitrary
vegetable	phenomena	methodical

EVERY man may be said to begin his education, or acquisition of knowledge, on the day of his birth. Certain objects, repeatedly presented to the infant, are after a time recognised and distinguished. The number of objects thus known, gradually increases, and, from the constitution of the mind, they are soon associated in the recollection, according to their resemblances, or obvious relations. Thus sweetmeats, toys, articles of dress, &c., soon form distinct classes in the memory and conception. At a later age, but still very early, the child distinguishes readily between a *mineral* mass, a *vegetable*, and an *animal*; and thus his mind has already noted the three great classes of natural bodies, and has acquired a certain degree of acquaintance with *natural history*. He also soon understands the phrases, "a falling body," "the force of a moving body," and has therefore a perception of the great physical laws of gravity and inertia. Having seen sugar dissolved in water, and wax melted round the wick of a burn-

ing candle, he has learned some phenomena of chemistry. And having observed the conduct of the domestic animals, and of the persons about him, he has begun his acquaintance with physiology and the science of mind. Lastly, when he has learned to count his fingers and his sugar plums, and to judge of the fairness of the division of cake between himself and his brothers, he has advanced into arithmetic and geometry. Thus, within a year or two, a child of common sense has made a degree of progress in all the great departments of human science, and, in addition, has learned to name objects, and to express feelings, by the arbitrary sounds of language. Such, then, are the beginnings or foundations of knowledge, on which future years of experience, or methodical education, must rear the superstructure of the more considerable attainments, which befit the various conditions of men in a civilised community.

The most complete education, as regards the mind, can only consist of a knowledge of natural history, and of science, and a familiarity with language. As regards the body, it consists of the formation of various habits of muscular action, performance on musical instruments, drawing and painting, and other exercises of utility or amusement. By reviewing a complete table of such matters, each man may see at once what he can know, and what it may suit his particular condition to study.

ARNOTT.

## LESSON VI.

## THE CASSIQUE.

Demerara	woodpecker	chorister
Guinea	distinctly	pendulous
actuated	gregarious	suspicious
neighbouring	imitates	proportions
aërial	exactness	symmetry
succession	colonists	ornithology

ONE bird, however, in Demerara is not actuated by selfish motives : that is the *cassique* ; in size, he is larger than the starling ; he courts the society of man, but disdains to live by his labours. When nature calls for support, he repairs to the neighbouring forest, and there partakes of the store of fruits and seeds, which she has produced in abundance for her aërial tribes. When his repast is over, he returns to man, and pays the little tribute which he owes him for his protection. He takes his station on a tree close to his house, and there, for hours together, pours forth a succession of imitative notes. His own song is sweet, but very short. If a toucan be yelping in the neighbourhood, the cassique drops his song and imitates him ; then he will amuse his protector with the cries of the different species of the woodpecker ; and when the sheep bleat, he will distinctly answer them ; then comes his own song again ; and if a puppy dog or a Guinea-fowl interrupt him, he takes it off admirably, and by his different gestures during the time, you would conclude that he enjoys the sport.

The cassique is gregarious, and imitates any sound he hears, with such exactness, that he goes by no other name than that of *mocking-bird* among the colonists. At breeding time, a number of these pretty choristers resort to a tree near the planter's house, and from its outside branches weave their pendulous nests. So conscious do they seem, that they never give offence, and so little suspicious are they of receiving any injury from man, that they will choose a tree within forty yards from his house, and occupy the branches so low down, that he may peep into their nests. A tree in Warratilla creeks affords a proof of this.

The proportions of the cassique are so fine, that he may be said to be a model of symmetry in ornithology. On each wing he has a bright yellow spot; his belly and half the tail are of the same colour; all the rest of the body is black; his beak is the colour of sulphur, but it fades in death, and requires the same operation as the bill of the toucan to make it keep its colour.

The ease, elegance, and rapidity of his movements, the animation of his eye, and the intelligence he displays in listening and laying up lessons from almost every species of the feathered creation within his hearing, are really surprising, and mark the peculiarity of his genius. This bird is easily domesticated and taught artificial tunes.

WATERTON.



## LESSON VII.

## RESPECT FOR OLD AGE.

Athens	gentleman	accommodate
Athenians	suitable	invited
Lacedemonians	quality	embarrassment
happened	observed	audience
representation	difficulty	instructed
exhibited	confusion	misconduct

It happened at Athens, during a public representation of some play, exhibited in honour of the state, that an old gentleman came too late for a place suitable to his age and quality. A number of young men, who observed the difficulty and confusion the poor old gentleman was in, made signs to him, that they would accommodate him, if he came where they sat. The good man bustled through the crowd accordingly; but when he came to the seats to which he was invited, the jest among the young fellows was, to sit close, and expose the confusion and embarrassment of the old man to the gaze of the whole audience. This frolic went round all the benches reserved for the Athenians. But, on those occasions, there were also particular places set apart for strangers. When the good man, covered with confusion, came towards the boxes appointed for the Lacedemonians, these honest, though less instructed people, rose from their seats, and, with the greatest respect, received the old gentleman among them. The Athenians, being suddenly touched with a sense

of the Lacedemonians' virtue, and their own misconduct, gave a thunder of applause ; and the old man cried out, "The Athenians understand what is good, but the Lacedemonians practise it."

ADDISON.

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LESSON VIII.

THE DESERTED VILLAGE.

SWEET Auburn ! loveliest village of the plain,  
Where health and plenty cheer'd the labouring  
swain ;

Where smiling spring its earliest visit paid,  
And parting summer's ling'ring bloom delay'd ;  
Dear lovely bow'rs of innocence and ease,  
Seats of my youth, when ev'ry sport could please,  
How often have I loiter'd o'er thy green,  
Where humble happiness endear'd each scene !  
How often have I paused on ev'ry charm,  
The shelter'd cot, the cultivated farm,  
The never-failing brook, the busy mill,  
The decent church that topp'd the neighb'ring hill,  
The hawthorn bush, with seats beneath the shade,  
For talking age and weary pilgrims made !  
How often have I blest the coming day,  
When toil remitting lent its turn to play ;  
And all the village train from labour free,  
Led up their sports beneath the spreading tree ;  
While many a pastime circled in the shade,  
The young contending as the old survey'd ;  
And many a gambol frolick'd o'er the ground,  
And sleights of art and feats of strength went round.

And still, as each repeated pleasure tired,  
 Succeeding sports the mirthful band inspired;  
 The dancing pair, that simply sought renown,  
 By holding out to tire each other down;  
 The swain mistrustless of his smutted face,  
 While secret laughter titter'd round the place.  
 These were thy charms, sweet village! sports like  
     these,  
 With sweet succession taught e'en toil to please;  
 These round thy bow'rs their cheerful influence  
     shed;  
 These were thy charms—but all these charms are  
     fled.

GOLDSMITH.

## LESSON IX.

### POLITENESS.

|              |                |              |
|--------------|----------------|--------------|
| Cultivate    | supercilious   | acquaintance |
| intercourse  | affectation    | propriety    |
| obliging     | superiority    | observation  |
| behaviour    | contradictions | reasoning    |
| connexion    | courtesy       | mortifying   |
| perpetuation | urbanity       | depressing   |

CARE should be taken to cultivate, in all intercourse with friends, gentle and obliging manners. It is a common error to suppose, that familiar intimacy supersedes attention to the lesser duties of behaviour; and that, under the notion of freedom, it may excuse a careless, or even a rough demeanour. On the contrary, an intimate con-

nexion can only be perpetuated by a constant endeavour to be pleasing and agreeable. The same behaviour which procures friendship, is absolutely necessary to the preservation of it. Let no harshness, no appearance of neglect, no supercilious affectation of superiority be encouraged in the intercourse of friends. A tart reply, a proneness to rebuke, a captious and contradictory spirit, are often known to embitter domestic life, and to set friends at variance; it is only by continuing courtesy and urbanity of behaviour, that we long preserve the comforts of friendship.

You must often have observed, that nothing is so strong a recommendation, on a slight acquaintance, as politeness; nor does it lose its value by time or intimacy, when preserved, as it ought to be, in the nearest connexions and strictest friendships.

In general, propriety of behaviour must be the fruit of instruction, of observation, and reasoning; and it is to be cultivated and improved like any other branch of knowledge or virtue. Particular modes and ceremonies of behaviour vary in different places. These can only be learned by observation on the manners of those who are best skilled in them. But the principles of politeness are the same in all places. Wherever there are human beings, it must be impolite to hurt the temper, or pain the feelings of those with whom you converse. By raising people up, instead of mortifying and depressing them, we make ourselves so many friends in place of enemies.

MRS. CHAPONE.

## LESSON X.

## LIFE OF OUR LORD.

|              |              |             |
|--------------|--------------|-------------|
| Incarnation  | circumcise   | declaration |
| determined   | purification | testament   |
| nativity     | venerable    | revelation  |
| computation  | resurrection | proffered   |
| espoused     | retirement   | Redeemer    |
| magnificence | wonderful    | testimony   |

THE incarnation of our Divine Redeemer in the womb of his Virgin Mother, was effected by the power of the Holy Ghost. In what year of the world the Saviour was born cannot now be exactly determined; but the most probable opinion is, that his nativity should be placed four years beyond our present computation. This however is certain, that in the reign of the emperor Augustus, and of Herod the Great, king of Judea, "the Word was made flesh and dwelt amongst us."

Mary, the virgin who gave birth to Jesus, and Joseph, to whom she had been espoused, were both of the royal house of David. Scarcely had our Lord been born, when he showed that he came not to reign amidst earthly wealth and magnificence, although it was He, to whom every knee should bend. For when God "bringeth his first-begotten into the world, he saith, And let all the angels of God adore him."—(*Heb.* i. 6.)

This happy event was first announced to shep-

herds, who were keeping their night-watches at Bethlehem, and to them, the poor, the gospel was first preached. From the poor also were they chosen, who were sent forth to bear to the nations the tidings of salvation ; that all, who had eyes to see, might see, that God chooses the weak ones of this world for his mighty works, and that not from human prudence or human labour, but from Him, come all wisdom, all power, and all grace.

According to the Mosaic law, the divine Infant was circumcised on the eighth day after his birth, and was named Jesus. And when the days of purification were ended, and his mother appeared in the temple with her Son, a venerable and devout man, named Simeon, prophesied, that he should be placed for the resurrection of many, and as a sign to be contradicted. Then came kings from distant lands in the east, and inquired in Jerusalem for the new-born King of the Jews. Hereupon, Herod trembled, and all Jerusalem with him, and, to free himself from his fears, he resolved upon the murder of the innocents. All the male children of two years of age and under, in Bethlehem, and around it, were slain. But Jesus was taken, by the command of God, into Egypt, where he remained until the death of the tyrant. After this event, he and his mother were conducted by Joseph again into the land of Israel, where they resided in domestic retirement, and where "the child grew in wisdom, in age, and in grace, before God and men."

That this wisdom was not acquired or learned in

the schools of the Jewish masters, but drawn from the highest and purest of heaven's founts, Jesus gave proof, when, in the twelfth year of his age, he stood in the temple of Jerusalem, and filled the minds of all around him with wonder, at his knowledge and at his answers.

In the thirtieth year of his age, Jesus appeared amongst the Jews, as the teacher and author of the Christian religion. In the mean time, John, the son of the priest Zachary, whose birth and life had been most wonderful, came forth from his wilderness. This man, who, according to the declaration of the Most Wise, was the greatest of those who had been born of women, stood as the medium-point between the new and the old Testaments, and as a necessary link in the chain of divine revelation. Rejecting the proffered honour of being reputed Elias, or even the Messias, he proclaimed aloud, with a voice from the wilderness, that the kingdom of the Messias was at hand,—that Jesus of Nazareth was the promised Redeemer,—that his kingdom was not national, nor of this earth. Our Lord, before the commencement of his teaching, was baptized by John, in the Jordan. His eternal Father then spoke; and whilst John, as man, bore testimony to his divine mission, Almighty God confirmed it by miracles from heaven. At this period, Tiberius was emperor of Rome; Pontius Pilate, governor of Judea; Herod Antipas, tetrarch of Galilee and Perea; and Philip, his brother, tetrarch of Idumea, Trachonitis, and Abilene.

DÖLLINGER.

## LESSON XI.

## LIFE OF OUR LORD (CONTINUED).

|                |              |                 |
|----------------|--------------|-----------------|
| Benevolence    | necessarily  | chastisements   |
| reconciliation | timidity     | derided         |
| humility       | interpreters | religion        |
| scandalized    | pharisees    | betrayers       |
| redemption     | seduced      | representatives |
| blasphemed     | tribunal     | ascension       |

WE must suppose the history of our blessed Redeemer to be sufficiently known by all. Avoiding all earthly splendour and worldly comforts, followed by a few chosen friends, unknown and persecuted by the rich and the noble as by the lowest of the people, he spent three years in acts of heavenly benevolence, and in imparting eternal truths to men. He taught the reconciliation of man with God, through faith and love, founded upon humility ; for those who love honours cannot believe in him. He has himself left us a brief history of his life in these words (*Mat. xi. 5*) : " The blind see, the lame walk, the lepers are cleansed, the deaf hear, the dead rise again, the poor have the gospel preached to them, and blessed is he who shall not be scandalized in me." And when the bitterness of his enemies had reached its highest point, he went with gladness to meet the sufferings that brought redemption and salvation to man. It is a just observation, but one which redounds not to our honour, that



men oftentimes love that which is evil and wicked, and that which is honourable and virtuous they will hardly believe of each other. Thus the enemies of the Most Holy found believers and followers, and He was despised, blasphemed, and murdered. A mind and a life opposed to the thoughts and ways of the earth, must necessarily have come in violent conflict with the world. "He was in the world, and the world knew him not; he came unto his own, and his own did not receive him." There were a few who followed him, but it was in timidity and fear; the powerful, on the contrary, and the many, incited by the interpreters of the law, by the priests and the pharisees, rose up against him, and sought his death.

He knew and foretold his sufferings. One of the chosen twelve was seduced to betray his Master, who, bound as a criminal, was led away to the tribunal of the high priest. When solemnly adjured to confess if he were the Son of God, he answered, "I am." Then did the assembled priests, and scribes, and members of the council, condemn him, as guilty of blasphemy, and worthy of death. From the Jewish court, which had lost, under the Romans, the power of death, he was borne away to the governor, Pilate, who, after unfeeling scorn, and severe chastisements, condemned the acknowledged innocent and just man to death. He died in the thirty-third year of his life upon earth, derided by the Romans and Jews, the most disgraceful death of the cross, and between two thieves. His bones were not broken,—the ordinary

usage after such a death; but, to prove that he was dead, a soldier opened his side with a spear. The body was buried in honour by a disciple: a guard was placed around the tomb, and a seal upon the stone.

On the third day he appeared again in life to his apostles. The truth of his religion could not be weakened by his violent and cruel death, but rather confirmed; and the end of his incarnation—the redemption and reconciliation of man with God—promoted. He remained forty days with his disciples, instructing them in the nature of his kingdom, their sacred duties, and future labours. There is nothing, however, expressed in the gospel, more than the general command to teach, to baptize, and to observe all things whatsoever he had commanded them. Of those who believed in him, Jesus had chosen twelve, whom he admitted as the favoured witnesses of his own words and works. These, with the exception of the betrayer, he left as his representatives on earth. There were also seventy-two disciples closely connected with him; they, also, after his ascension, preached the gospel, but with less ample powers than the apostles. All these, or many of them, (“they who were come together,”—*Acts* i. 6), assembled with Jesus, near Bethania, at the end of the forty days; and whilst they were looking upon him, he raised his hands and blessed them, and was borne away into heaven.

DÖLLINGER.

## LESSON XII.

## THE NATURAL PHILOSOPHY OF CHILDREN.

|             |               |              |
|-------------|---------------|--------------|
| Capacity    | philosophy    | reflecting   |
| attending   | curiosity     | description  |
| considering | recreation    | fermented    |
| admiring    | diversion     | softened     |
| beauties    | inconceivable | strengthened |
| physics     | accustomed    | fortified    |

So I call the study of nature, which scarcely requires anything besides the eyes, and for this reason falls within the capacity of all persons, even of children. It consists in attending to the objects with which nature presents us, in considering them with care, and admiring their different beauties, but without searching out their causes, which properly belongs to the physics of the learned. I say, that even children are capable of it; for they have eyes, and do not want curiosity; they ask questions, and love to be informed; and here we need only awaken and keep up in them the desire of learning and knowing, which is natural to all mankind. Besides, this study, if it is to be called a study, instead of being painful and tedious, is pleasant and agreeable; it may be as a recreation, and should usually be made a diversion. It is inconceivable, how many things children are capable of, if all the opportunities of instructing them were laid hold of, with which they themselves present us. A garden, a country, a palace, are all so many books, which

may be open to them ; but they must have been taught and accustomed to read in them. Nothing is more common amongst us, than the use of bread and linen. How seldom do children know how either of them is prepared ; through how many hands the corn and flax must pass, before they are changed into bread and linen ! The same may be said of cloth, which bears no resemblance to the wool whereof it is formed, any more than paper, to the rags which are picked up in the streets ; and why should not children be instructed in these wonderful works of nature and art, which they every day make use of without reflecting upon them ? It is very agreeable, to read in Tully's treatise of old age, the elegant description which he gives of the growth of corn. It is admirable how the seed, fermented and softened by the warmth and moisture of the earth, which kindly retains it in her bosom, sends forth at first a verdant point, which, fed and nourished from the root, raises itself by degrees, and erects a hollow stalk, strengthened with knots ; how the ear, enclosed in a kind of case, insensibly grows in it, and at last shoots forth in admirable form, fortified with bearded spikes, which serve it as a guard against the injuries of the small birds. But to view this wonder itself with our own eyes, to follow it attentively through all its different changes, and pursue it till it comes to perfection, is quite another spectacle. A careful master will find in this exercise, the means of enriching the mind of his disciple, with a great number of useful and agree-

able ideas, and by a proper mixture of short reflections, will, at the same time, take care to form his heart, and lead him by the path of nature to religion.

ROLLIN.

LESSON XIII.

HYMN TO THE B. V. MARY.

Ave Maria ! blessed Maid !  
 Lily of Eden's fragrant shade,  
 Who can express the love  
 That nurtured thee so pure and sweet,  
 Making thy heart a shelter meet  
 For Jesus, holy Dove ?

Ave Maria ! Mother bless'd !  
 To whom caressing and caress'd,  
 Clings the eternal Child ;  
 Favour'd beyond archangel's dream,  
 When first on thee with tenderest gleam  
 Thy new-born Saviour smiled.

Ave Maria ! Thou whose name  
 All but adoring love may claim,  
 Yet may we reach thy shrine :  
 For he, thy Son and Saviour, vows  
 To crown all lowly, lofty brows  
 With love and joy like thine.

Bless'd is the womb that bore Him ! bless'd  
 The bosom where his lips were press'd,  
 And blessed too are they  
 Who hear his word and keep it well,  
 The living homes where Christ shall dwell,  
 And never pass away.

KEEBLE.

## LESSON XIV.

### THE ZEALOUS CHILD.

|              |            |           |
|--------------|------------|-----------|
| Villages     | apparently | surnamed  |
| acquaintance | baptismal  | religious |
| reception    | characters | catechism |
| interchange  | combined   | usually   |
| assembled    | ingenuity  | modesty   |
| apartment    | suavity    | docility  |

THE district in which we now are, contains a great many villages, at the foot of a mountain, which the Arabs call *Jabel Chek*, that is, the mountain of the old man, a name which they give it, because, for the most part of the year, it is covered with snow. On our arrival, we went to the house of a convert, an acquaintance, from whom we expected a warm reception. We were not disappointed ; he received us with joy and affection.

As soon as he heard that the missionaries were waiting, he ran with haste to the door to receive us. He immediately took each of us by the right hand, which, after he had kissed, he placed upon

his head as a mark of respect. He then addressed the priest by whom I was accompanied, in terms such as these: "My father, thou art welcome; at the very time that thou wert coming, I had thee in my heart; the blessing of heaven has descended, and together with thy friend, enters my dwelling in thy company; I look upon this moment as the happiest of my life: come in, my father, come into my dwelling, where thou mayest command and must be obeyed." After the first interchange of civility, we were conducted to a large apartment, in which a great many persons were assembled. They kissed our hands in the same manner as the master of the house had done before. We took notice, among these Christians, of a very young child, not apparently more than five years old, who, having come up to us, went on his knees to beg our blessing. His baptismal name was John, and he was surnamed by his parents "The Riches of God." It is the custom of this country for the head of the family to give each child a surname soon after its birth. "The Riches of God" was one of those fine characters, in which nature and grace seem to have combined, to impart, by his means, happiness and comfort to a Christian family. To a fine countenance and a charming ingenuity, he added a natural suavity of disposition, and an ardent desire of information. He asked us many questions on religious subjects; and, with a pleasing importunity, which is always delightful to a missionary of God, he entreated us to instruct him. Being aware that I

was to be catechist in this new mission, I was convinced immediately how serviceable he would likely be to me. Whilst my companion went to visit the sick, and console the afflicted, I assembled the children, and taught them the catechism. The "Riches of God" soon became a young apostle. He went to all the places where the children usually played, and collected them together. God gave efficacy to the words of the young missionary; his play-fellows followed him. At the head of his little troop he came into the chapel, with his eyes cast down and hands joined. "Father," said he, "teach us to know and love the great God of whom you preach." His conduct inspired all the rest with a degree of modesty and docility. I could scarcely believe myself in the midst of unsteady children. They were rather like so many little angels, the sight of whom awakened the most tender affections, and excited me even to tears. But we were soon to separate from them; more pressing demands obliged our superiors to withdraw us. I cannot tell the reluctance with which we parted from so precious a little flock, or the regret which they expressed, when we were about to leave them. They bedewed us with their tears. The delights which we felt amongst them, are some of those choice consolations, which God bestows even in this life, on those who labour in his service, more, however, to animate their zeal, than to reward their exertions.

LETTRES EDIFIANTES.



## LESSON XV.

## PROGRESS OF CIVILIZATION.

|             |               |            |
|-------------|---------------|------------|
| Inhabitants | indifferent   | patrimony  |
| forefathers | exultation    | protecting |
| societies   | conveniencies | antiquity  |
| surrounding | centuries     | individual |
| territories | steam-engines | historian  |
| civilized   | cutlery       | equator    |

THE condition of the present inhabitants of this country is very different from that of their forefathers. These, generally divided into small states or societies, had few relations of amity with surrounding tribes, and their thoughts and interests were confined very much within their own little territories and rude habits. Now, however, everyone sees himself a member of one vast, civilized society, which covers the face of the earth, and no part of the earth is indifferent to him. In England, a man of small fortune may cast his regards around him, and say with truth and exultation: "I am lodged in a house that affords me conveniencies and comforts, which even a king could not command some centuries ago. There are ships crossing the seas in every direction, to bring what is useful to me, from all parts of the earth. In China, men are gathering the tea-leaf for me; in America, they are planting cotton for me; in the West-India islands, they are feeding silk-worms for me; in Saxony, they are shearing the sheep to make me clothing. At home, powerful steam-

engines are spinning and weaving for me, and making cutlery for me, and pumping the mines, that minerals, useful to me, may be procured. My patrimony is small, yet I have post-coaches running day and night on all roads to carry my correspondence; I have roads, and canals, and bridges, to bear the coal for my winter fire; nay, I have protecting fleets and armies around my happy country, to secure my enjoyments and repose. Then I have editors and printers, who daily send me an account of what is going on throughout the world, among all these people who serve me; and in a corner of my house, I have books, the miracle of all my possessions, more wonderful than the wishing cap of the Arabian Tales, for they transport me instantly, not only to all places, but to all times. By my books, I can conjure up before me, to vivid existence, all the great and good men of antiquity; and for my individual satisfaction, I can make them act over again the most renowned of their exploits: the orators declaim for me; the historians recite; the poets sing: in a word, from the equator to the pole, and from the beginning of time until now, by my books, I can be where I please." This picture is not overcharged, and might be much extended; such being the miracle of God's goodness and providence, that each individual of the civilized millions that cover the earth, may have nearly the same enjoyments, as if he were the single lord of all.

ARNOTT.

## LESSON XVI.

## TIME AND ETERNITY.

For, stretch to life's extremest span  
 The brilliant course of earthly pleasure,  
 How looks the space assigned to man,  
 Lost in the vast eternal measure !

Rank, fortune, love, earth's highest bliss,  
 All life can yield, of sweet or splendid,  
 Are but a thing that scarcely is,  
 When lo ! its mortal date is ended !

So swift is time, so briefly lost,  
 The fleeting joys of life's creation,  
 What seems the present, is the past,  
 Before the mind can mark its station.

On earth we hold the spirit blest,  
 That learns to bear affliction cheerly,  
 And what we call, and fancy rest,  
 Is brief annihilation merely.

'Tis vain to say in youthful ears,  
 Time flees, earth fades, with all its pleasures ;  
 The ardent heart attentive hears,  
 But nought of transient counsel treasures.

'Tis heavenly grace alone, my child,  
 The fruit of prayer attending duly,  
 Can firmly stem the tumult wild,  
 Of earthly passion rising newly.

Then shall we for so brief a world,  
 A speck in nature's vast dominion,  
 With hope's high banner basely furl'd,  
 Return to earth with slothful pinion !

Forbid it truth, forbid it love,  
 The faithful thought untold should perish ;  
 Forbid it all we hope above,  
 And all on earth we know and cherish.

G. GRIFFIN.



## LESSON XVII.

### COPPER MINES.

|            |            |             |
|------------|------------|-------------|
| Europe     | gravelly   | polished    |
| Cornwall   | resembling | congeries   |
| malleable  | filligree  | granules    |
| alloyed    | inferior   | impregnated |
| substances | matured    | receptacle  |
| crystal    | unmixed    | immersed    |

No part of Europe affords richer copper than Cornwall, though the mines have not been worked with considerable advantage much more than a century. It is there discovered in a vast variety of ores, the most common of which is of a yellow brass colour ; the black, blue, and green ores yield but little ; the grey contains more metal than the yellow, and the red more than the grey. There are, besides, in most of the mines, considerable quantities of malleable copper, which, from its

purity, the miners term virgin ore. This is combined and alloyed with various substances; sometimes with base crystal, sometimes with a gravelly clay, and sometimes with the rust of iron. Its figure is also various, being sometimes in thin plates, shaped like leaves; sometimes in drops and lumps; sometimes branched, fringed, or twisted into wires; sometimes crossed at the top like a dagger, and sometimes resembling hollow filligree. It has also been found in powder, little inferior in lustre to that of gold; in solid masses of several pounds weight, matured, unmixed, and highly polished; and in a congeries of combined granules. The water in which the copper is washed, has been discovered to make blue vitriol of the best kind; and that which comes from the bottom of the mines, is so strongly impregnated with copper, that were it detained in proper receptacles, it would produce great quantities of malleable copper, without any hazard or attendance, and with little more charge than the purchase of a much less quantity of the most useless old iron; which, being immersed in this water, will, in about fourteen days, produce more than its weight of what is called copper mud, whence may be obtained a great proportion of pure copper.

SMITH'S WONDERS.

## LESSON XVIII.

## THE COCOA NUT.

|            |             |              |
|------------|-------------|--------------|
| Cocoa      | liquid      | intoxicating |
| external   | maturity    | sail-cloth   |
| triangular | nutritious  | surpasses    |
| fibrous    | incisions   | durability   |
| membrane   | spirituous  | domestic     |
| refreshing | exceedingly | utensil      |

THE tree which produces this fruit is a kind of palm: its trunk resembles a stately column, fourteen or fifteen feet in length, and three in diameter, and crowned at the summit with narrow leaves; amidst these hangs the fruit. The external rind of the cocoa-nut is brown, smooth, and approaches a triangular form. This covering encloses an extremely fibrous substance of considerable thickness, which immediately surrounds the nut: the latter has a thick and hard shell, with three holes at the base, each closed by a black membrane. The kernel is about an inch in thickness; it lines the shell, and encloses a sweet, refreshing liquid. The cocoa-nut tree affords the Indians food, clothing, and means of shelter. Before the kernel comes to maturity, it is soft and pulpy, may be scraped out with a spoon, and affords the natives an agreeable and nutritious food; when pressed in a mill, it yields an oil. By making incisions in the tree during the spring, a cool, refreshing liquor flows out, which, if allowed to stand any time, ferments, becomes spirituous, and is exceedingly intoxicating; it is called *toddy*. By soaking the

fibrous trunk in water, it becomes soft, and can be manufactured into sail-cloth, or twisted into cordage of any description, which surpasses in durability that formed of hemp. The woody shells are used for cups, ladles, or other domestic utensils. The trunk of the tree furnishes either beams or rafters for their habitations, or is made into boats. The leaves platted together form an excellent thatch; they are also used for umbrellas, mats, and various other useful articles.

MAYO.

## LESSON XIX.

### THE VAMPIRE.

|           |                 |              |
|-----------|-----------------|--------------|
| Guiana    | perpendicularly | fabulous     |
| Barbadoes | questioned      | repeatedly   |
| Demerara  | sanguinary      | provoking    |
| Orinoco   | debility        | solitary     |
| Cayenne   | quadruped       | wood-cutters |
| Europeans | interior        | abandoned    |

THE *vampire* is chiefly found in South America; it is about the size of a squirrel, and its wings, when extended, measure four or five feet. It has a sharp black nose, large and upright ears, the tongue pointed, talons very crooked and strong, and no tail. At the end of the nose, it has a long, conic, erect membrane, bending at the top, and flexible. They vary in colour, some being entirely of a reddish brown, others dusky. They live on flesh, fish, and fruits, and are peculiarly fond of blood.

The vampire of India, and that of South America, I consider distinct species. I have never yet seen a bat from India with a membrane rising perpendicularly from the end of its nose; nor have I ever been able to learn that bats in India suck animals, though I have questioned many people on this subject. I could only find two species of bats in Guiana with a membrane rising from the nose. Both these kinds suck animals and eat fruit; while those bats, without a membrane on the nose, seem to live entirely upon fruit and insects, but chiefly upon the latter. A gentleman, by name Walcott, from Barbadoes, lived far up the river Demerara. While I was passing a day or two at his house, the vampires sucked his son, a boy of about ten or eleven years old, some of his fowls, and his jack-ass. The youth showed me his forehead at day-break; the wound was still bleeding apace, and I examined it with minute attention. The poor ass was doomed to be a prey to these sanguinary imps of night. I saw, by the numerous sores on his body, and by his apparent debility, that he would soon sink under his afflictions. Mr. Walcott told me, that it was with the greatest difficulty he could keep a few fowls, on account of the smaller vampire; and that the larger kind were killing his poor ass by inches. It was the only quadruped he had brought up with him into the forest.

Although I was so long in Dutch Guiana, and visited the Orinoco and Cayenne, ranged through part of the interior of Portuguese Guiana, still I could never find out how the vampires actually



draw the blood ; and, at this day, I am as ignorant of the real process, as though I had never been in the vampire's country. I should not feel so mortified at my total failure in attempting the discovery, had I not made such diligent search after the vampire, and examined its haunts. Europeans may consider as fabulous the stories related of the vampire ; but, for my own part, I must believe in its powers of sucking blood from living animals, as I have repeatedly seen both men and beasts that had been repeatedly sucked ; and, moreover, I have examined very minutely their bleeding wounds. Wishful of having it in my power to say that I had been sucked by the vampire, and not caring for the loss of ten or twelve ounces of blood, I frequently and designedly put myself in the way of trial. But the vampire seemed to take a personal dislike to me ; and the provoking brute would refuse to give my claret one solitary trial, though he would tap the more favoured Indian's toe, in a hammock within a few yards of mine. For the space of eleven months, I slept alone on the loft of a woodcutter's abandoned house in the forest ; and though the vampire came in and out every night, and I had the finest opportunity of seeing him, as the moon shone through apertures where windows had once been, I never could be certain, that I saw him make a positive attempt to quench his thirst from my veins, though he often hovered over the hammock.

WATERTON.

## LESSON XX.

## SHIPWRECK OF THE CHILDREN OF HENRY I.

|             |             |              |
|-------------|-------------|--------------|
| Normandy    | ambition    | revelling    |
| Barfleur    | compelled   | situation    |
| Rouen       | investiture | multitude    |
| Southampton | mariner     | benumbed     |
| Blois       | conveying   | catastrophe  |
| Anjou       | unfurled    | dispensation |

THE ambition of Henry was now gratified. His foreign foes had been compelled to solicit peace ; his Norman enemies had been crushed by the weight of his arms ; and if further security were wanted, it had been obtained by the investiture of the duchy of Normandy, which had been granted to his son William. After an absence of four years, he resolved to return in triumph to England, November, 1120. At Barfleur he was met by a Norman mariner, called Fitz-Stephen, who offered him a mark of gold, and solicited the honour of conveying him in his own vessel, "The White Ship." It was, he observed, new, and manned with fifty of the most able seamen. His father had carried the king's father, when he sailed to the conquest of England ; and the service by which he held his fee, was that of providing for the passage of his sovereign. Henry replied, that he had already chosen a vessel for himself ; but that he would confide his son and his treasures to the care of Fitz-Stephen. With the young prince (he was in his eighteenth year) embarked his

brother Richard, and his sister Adela; the earl of Chester and his countess, the king's niece, sixteen other noble ladies, and one hundred and forty knights. They spent some hours on deck; in feasting and dancing, and distributed three barrels of wine among the crew : but the riot and intoxication which prevailed about sunset, induced the most prudent to quit the vessel and return to the shore. Henry had set sail as soon as the wind would permit. William, after a long delay, ordered Fitz-Stephen to follow his father. Immediately every sail was unfurled, every oar was plied ; but amid the music and revelling the care of the helm was neglected, and "The White Ship" struck against a rock, called the *Catteraze*. The rapid influx of the water admonished the gay and heedless company of their alarming situation. By Fitz-Stephen, the prince was immediately lowered into a boat, and told to row back to the land ; but the shrieks of his sister recalled him to the wreck, and the boat sank under the multitude that poured into it. In a short time the vessel itself went down, and three hundred persons were buried in the waves. A young nobleman, Geoffry de l'Aigle, and Berold, a butcher of Rouen, alone saved themselves by clinging to the top of the mast. After a few minutes, the unfortunate Fitz-Stephen swam towards them, inquired for the prince, and being told that he had perished, plunged under the water. Geoffry, benumbed by the cold of a November night, was soon washed away, and as he sank, uttered a prayer for the

safety of his companion. Berold retained his hold, and was rescued in the morning by a fishing-boat, and related the particulars of this doleful catastrophe. Henry had arrived at Southampton, and frequently expressed his surprise at the tardiness of his son. The first intelligence was conveyed to Theobald of Blois, who communicated it to his friends, but dared not inform the king. The next morning the fatal secret was revealed by a young page, who threw himself in tears at his feet. At the shock, Henry sank to the ground, but recovering himself, affected a display of fortitude which he did not feel. He talked of submission to the dispensations of Providence ; but the wound had penetrated deep into his heart : his grief gradually subsided into a settled melancholy ; and it is said, that from that day he was never observed to smile. Matilda, the wife of the prince, by the death of her husband, became a widow at the age of twelve, within six months after their marriage. By Henry she was treated with the affection of a parent ; but at the demand of her father, returned to Anjou, and ten years afterwards put on the veil in the convent of Fontevraud.

But Henry, deprived of his only legitimate son, had new plans to form, new precautions to take, against the pretensions and attempt of his nephew. On that prince every eye was fixed : his virtues and misfortunes were the theme of general conversation ; and few men doubted that he would ultimately succeed to the throne.

LINGARD.

## LESSON XXI.

## HUMILITY, THE FOUNDATION OF PATIENCE.

|            |                |                |
|------------|----------------|----------------|
| Gandia     | accustomed     | resignation    |
| grandee    | apartment      | privations     |
| nobleman   | wholesome      | contradictions |
| compassion | entertainments | conviction     |
| addressed  | comprehend     | temptations    |
| wearying   | preparation    | pusillanimity  |

THE holy Francis Borgia, who, before the death of his consort, had been Duke of Gandia, and one amongst the proudest of Spain's grandees, was one day, (now a religious), passing through his native city, clothed in the humble habit of his society, when he was met by a nobleman, a friend of his earlier years, who gazed upon him with wonder and compassion, and thus at length addressed him: "How does this new kind of life please you, my friend?"—"Well," answered Francis, with a cheerful smile. "But," continued the other, "how can you endure this long and wearying journey on foot? You have been accustomed to better things. Who now provides for you a becoming apartment, or a wholesome repast?"—"For all this," replied the saint, "I am well provided. I meet with the best of entertainment and of food, and at night, I always find the softest couch. My servant and my courier attend carefully to these things."—"How so? you are alone."—"I have sent them onwards before me. But that you may more fully comprehend how this

preparation is made for me, know, that at the dawn of each morning, when I elevate my heart to God, and think of my actions and omissions during the coming day, I then form the resolution of receiving with resignation all the privations, contradictions, troubles and sufferings, which it may please my God to send me, in the full conviction that I merit them all, and far greater than these, by my sins. This thought is the servant that I send before me, and as I find everything around me better than I deserve, I consider myself entertained and served in the best possible manner."

Happy is the Christian, who, at the commencement of each day, has such a servant in attendance at his side. "Count it all joy when you shall meet with temptations; knowing, that the trying of your faith worketh patience; and patience hath a perfect work." Trials which are involuntary are much more profitable than humiliations of choice, in which self-love easily insinuates itself. Such, therefore, as Providence sent, the saint most cheerfully embraced. Consequently, he that is true to his faith, and cherishes sincere humility in his heart, beholds the trials of his faith advancing against him: he prepares to meet them, and seeks not, by impatience or pusillanimity, to descend from his cross, but strengthens himself by the contemplation of the great Master of patience, Jesus Christ, upon his cross on Calvary.

BUTLER.

## LESSON XXII.

## THE WADDING TREE.

|             |           |             |
|-------------|-----------|-------------|
| Siam        | hazel-nut | composed    |
| abundantly  | indented  | terminating |
| resembles   | properly  | extremity   |
| disposition | oblong    | adhesive    |
| adhering    | banana    | issues      |
| sprinkled   | enclosed  | yellowish   |

THE tree which bears the wadding, or that species of fine cotton which is used in cushions, the lining of morning gowns, and for other purposes, grows abundantly in Siam, in the open country, and without culture. Of this tree there are two very different species. The large wadding-tree, (of which there are also two kinds), resembles the walnut-tree in the form and disposition of its branches. The trunk is generally straighter and higher, not unlike that of the oak. The bark is covered in certain parts with a species of thorns, short and thick at the base, which are ranged in files, and set extremely close. The leaves observe a mean between those of the walnut and chesnut. They grow in fives; their stems, which are very short, adhering to a sixth, which they possess in common, and which is often more than a foot in length. The blossom is of the shape and size of an ordinary tulip, but it has thicker leaves, and they are covered with a kind of down, which feels somewhat rough to the touch. The cup is of a clear green, sprinkled with black, and shaped like that

of the hazel-nut, except that it is not so much notched and fringed at the top, it being only a little indented in some parts.

All this is common to both species of the large wadding-tree. As to the fruit, or more properly speaking, the case which contains the wadding, it is of an oblong shape, like that of the banana fig.

The second, or rather the third species of wadding-tree, is much less in size than the two already described. Its leaves are covered on both sides with short and very soft down. The pod, which encloses the wadding, is composed of two tubes, terminating in a point at either extremity, and joined together. They are usually of the length of nine or ten, and sometimes even twelve inches, and of the thickness of the little finger. If opened while they are green, a very white and adhesive milk issues forth, and the wadding is found within, pressed close, with many yellowish grains, of an oblong form.

A species of wadding is cultivated in the West Indies, and there called, the cotton of Siam, because the grain or seed was brought from that country. It is of an extraordinary fineness, even surpassing silk in softness. It is sometimes made into hose, which, for lustre and beauty, are preferred to silk ones. They sell at from ten to fifteen crowns a pair, but there are very few made unless for curiosity.

LETTRES EDIFIANTES.



## LESSON XXIII.

## VISION OF BALTASSAR.

THE king was on his throne,  
 The satraps throng'd the hall;  
 A thousand bright lamps shone  
 O'er that high festival.  
 A thousand cups of gold,  
 In Judah deem'd divine—  
 Jehovah's vessels hold  
 The godless heathen's wine !

In that same hour and hall,  
 The fingers of a hand  
 Came forth against the wall,  
 And wrote as if on sand :  
 The fingers of a man ;—  
 A solitary hand  
 Along the letters ran,  
 And traced them like a wand.

The monarch saw, and shook,  
 And bade no more rejoice ;  
 All bloodless wax'd his look,  
 And tremulous his voice.  
 " Ye men of lore appear,  
 The wisest of the earth,  
 Expound the words of fear,  
 Which mar our royal mirth."

Chaldea's seers are good,  
 But here they have no skill ;  
 The mystic letters stood  
 Untold and awful still.

And Babel's men of age  
 Are wise and deep in lore ;  
 But now they were not sage,  
 They saw—but knew no more.

A captive in the land,  
 A stranger and a youth,  
 He heard the king's command,  
 He saw that writing's truth.  
 The lamps around were bright,  
 The prophecy in view ;  
 He read it on that night,—  
 The morrow proved it true.

“ Baltassar's grave is made,  
 His kingdom pass'd away,  
 He, in the balance weigh'd,  
 Is light and worthless clay.  
 The shroud, his robe of state,  
 His canopy the stone ;  
 The Mede is at his gate !  
 The Persian on his throne !”

BYRON.

## SECTION III.

## LESSON I.

## THE BOA-CONSTRICTOR.

|            |             |            |
|------------|-------------|------------|
| India      | distributed | voluminous |
| Java       | variations  | entwined   |
| Ceylon     | venomous    | malefactor |
| enormous   | buffalo     | saliva     |
| compressed | expectation | dilated    |
| undivided  | affrighted  | gluttony   |

THE Boa-constrictor, a native of India, the larger Indian islands, and South America, attains the enormous length of thirty or forty feet. It has a compressed body, thickest in the middle, a prehensile tail, small scales on the head, scuta or undivided plates on the belly and under the tail. The ground colour of its skin is yellowish grey, on which is distributed along the back, a series of large chainlike reddish brown, and sometimes perfectly red variations, with other small and more irregular marks and spots. It is not venomous, and overcomes its prey by mere force. It preys on dogs, deer, and oxen, which it swallows entire.

In the Island of Java, one of these monsters has been known to kill and devour a buffalo. The serpent had for some time been waiting near the

brink of a pool, in expectation of its prey, when a buffalo was the first that offered. Having darted upon the affrighted animal, it instantly began to wrap it round with its voluminous twistings, and, at every twist, the bones of the buffalo were heard to crack, almost as loud as the report of a cannon. It was in vain that the poor animal struggled hard and bellowed; its enormous enemy entwined it too fast to get free; till at length its bones, being smashed to pieces, like those of a malefactor on the wheel, and the whole body reduced to one uniform mass, the serpent untwined its folds, to swallow its prey at leisure. To prepare for this, and in order to make the body slip down the throat more freely, it licked the whole body over, and thus covered it with saliva. It then began to swallow it, at that end, which offered least resistance, while its length of body was dilated to receive its prey, and thus took in at once, a morsel that was three times its own thickness. A more extraordinary feat was witnessed in the Island of Ceylon, in which a boa, with equal ease, in presence of one of the British outposts, destroyed and gorged a tiger; but its gluttony caused its death, for after it had swallowed the animal, it became incapable of motion, and was killed without resistance.

AIKMAN'S ANIMAL KINGDOM.

## LESSON II.

## PORCELAIN TOWER, NANKIN.

|          |              |            |
|----------|--------------|------------|
| China    | porcelain    | agitates   |
| Nankin   | octangular   | jingling   |
| erected  | diminishes   | ceilings   |
| designed | pyramid      | embellish  |
| ornament | balustrade   | structures |
| adjacent | incommodious | wasting    |

WITHOUT the gates of several great cities in China there are lofty towers, which seem chiefly designed for ornament, and for taking a view of the adjacent country. The most remarkable of these towers is that of Nankin, called the porcelain tower, from its being entirely covered with porcelain tiles, beautifully painted. It is of an octangular figure, contains nine stories, and is about two hundred feet high, being raised on a very solid base of brick-work. The wall at the bottom is at least twelve feet thick; and the building gradually diminishes to the top, which is terminated by a sort of spire or pyramid, having a large golden ball, or pine-apple, on its summit. It is surrounded by a balustrade of rough marble, and has an ascent of twelve steps to the first floor, whence one may ascend to the ninth story, by very narrow and incommodious stairs, each step being ten inches deep. Between every story there is a kind of penthouse or shed on the outside of the tower, and at each corner are hung little bells, which, being agitated by the wind, make a pleasant jing-

ling. Each story is formed by large pieces of timber, and boards laid across them. The ceilings of the rooms are adorned with paintings; and the light is admitted through windows made of grates or lattices of wire. There are, likewise, many niches in the wall, filled with Chinese idols; and the variety of ornaments that embellish the whole, renders it one of the most beautiful structures in the empire. It has now stood above 350 years, and yet appears to have suffered but little from the wasting hand of time.

SMITH'S WONDERS.



### LESSON III.

#### SAYINGS OF POOR RICHARD.

|            |             |           |
|------------|-------------|-----------|
| Government | signifies   | sluggard  |
| disease    | followed    | hindereth |
| absolutely | industrious | ashamed   |
| perplexity | increaseth  | steadily  |
| laziness   | legacy      | patience  |
| business   | diligence   | cable     |

It would be thought a hard government, that should tax its people one-tenth part of their time, to be employed in its service; but idleness taxes many of us much more: sloth, by bringing on disease, absolutely shortens life. "Sloth, like rust, consumes faster than labour wears, while the used key is always bright," as Poor Richard says. But, "dost thou love life? then do not squander

time, for that is the stuff life is made of," as Poor Richard says. How much more than is necessary do we spend in sleep! forgetting that "the sleeping fox catches no poultry," and that "there will be sleeping enough in the grave," as Poor Richard says.

"If time be, of all things, the most precious, wasting time must be," as Poor Richard says, "the greatest prodigality;" since, as he elsewhere tells us, "Lost time is never found again;" and what we call time enough, always proves little enough. Let us, then, be up and doing; and be doing to the purpose; so by diligence shall we do more with less perplexity. "Sloth makes all things difficult, but industry makes all easy: and he that riseth late, must trot all day, and shall scarcely overtake his business at night;" while "laziness travels so slowly, that poverty soon overtakes him." "Drive thy business; let not that drive thee; and early to bed, and early to rise, makes a man healthy, wealthy, and wise," as Poor Richard says.

So what signifies wishing and hoping for better times? We may make these times better, if we bestir ourselves. "Industry needs not wish, and he that lives upon hope, will be fasting." "There are no gains without pains: then help, hands, for I have no lands; or if I have, they are heavily taxed. He that hath a trade, hath an estate; and he that hath a calling, hath an office of profit and honour," as Poor Richard says; but, then, the trade must be worked at, and the calling well

followed, or neither the estate nor the office will enable us to pay our taxes. If we be industrious, we shall never starve ; for, “at the working-man’s house, hunger looks in, but dares not enter ; for industry pays debts, while despair increaseth them.” What ! though you have found no treasure, nor has any rich relation left you a legacy, “diligence is the mother of good luck, and God gives all things to industry ; then, plough deep, while sluggards sleep, and you shall have corn to sell and to keep ; work while it is called to-day, for you know not how much you may be hindered to-morrow,” as Poor Richard says ; and further, “never leave that till to-morrow, which you can do to-day.” If you were a servant, would you not be ashamed that a good master should catch you idle ? Are you, then, your own master ? Be ashamed to catch yourself idle, where there is so much to be done for yourself, your family, your country, and your sovereign. “Handle your tools without mittens ; remember that the cat in gloves catches no mice,” as Poor Richard says. It is true, there is much to be done, and perhaps you are weak-handed ; but stick to it steadily, and you will see great effects ; for “constant dropping wears stones,” and, “by diligence and patience, the mouse ate in two the cable ;” and, “little strokes fell great oaks.”

FRANKLIN.





## LESSON IV.

## PROVIDENTIAL DELIVERANCE.

|           |             |            |
|-----------|-------------|------------|
| Jerusalem | pilgrimage  | enormous   |
| Carmel    | Providence  | formidable |
| Nazareth  | monastery   | receding   |
| Austrian  | hospitality | ferocious  |
| Caiffa    | tranquilly  | tantalize  |
| Arab      | community   | imminent   |

FATHER GERAMB, in the account of his pilgrimage to Jerusalem, relates an adventure, in which the merciful interposition of divine Providence was singularly visible. Mount Carmel, to which he paid a visit after leaving Nazareth, affords a haunt to wild beasts, that sometimes renders it dangerous to the unprotected traveller. A short time before his arrival, some naval officers, belonging to an Austrian frigate, which had put into the port of Caiffa, came to the monastery, which is situated on the mountain, and which affords hospitality to strangers. Their visit being ended, they requested a young lad, who acted as a kind of domestic in the convent, to show them a short way down the mountain, to their long-boat. He complied, and, after accompanying them a considerable distance, was returning tranquilly to the house of the community, when, on a sudden, he beheld an enormous panther rushing down upon him. At the sight of this formidable animal, alone as he was, and without strength to use arms, even

if he was provided with them, his sensations may be easily imagined. His knees bent under him, and he felt himself absolutely incapable of advancing or receding a single step. Meanwhile, in the twinkling of an eye the panther reached him. Sporting with its prey, in the manner of a cat with a mouse which she has taken, the ferocious animal began to take different positions, varying into attitudes, and seeking to touch him with its foot, as if to tantalize him; then removing suddenly to the distance of some paces, darted rapidly upon him. The poor youth understood very well, by what he had heard of the unhappy fate of others in a similar case, in what manner this frightful sport was to terminate; he believed that his last hour was come. In this frightful position, destitute of all human succour, he did not, however, forget the lessons of his Christian education, which taught him, that in every extremity man has an invisible friend, the Lord and Maker of animals and men, whose ears are ever open to the cry of the distressed, and who, if he sees it expedient for us, can at any time rescue us from danger. He recommended himself to God, in secret, but fervent prayer. At that instant a noise was heard: it was an Arab horseman, armed with a gun, who approached with the intention of passing by the spot. Affrighted in its turn, the panther took to flight, at the moment when, bereft of all strength, and almost sinking to the earth, he whom it had kept a prisoner, was about to become its victim. He returned to the monastery, pour-

ing out his heart in gratitude to heaven, for having so miraculously preserved him from imminent danger.



## LESSON V.

### SWITZERLAND.

No product here the barren hills afford,  
 But man and steel, the soldier and his sword ;  
 No vernal blooms their torpid rocks array,  
 But winter, lingering, chills the lap of May ;  
 No zephyr fondly sues the mountain's breast,  
 But meteors glare, and stormy glooms invest.  
 Yet still, even here, content can spread a charm,  
 Redress the clime, and all its rage disarm.  
 Though poor the peasant's hut, his feasts though  
     small,  
 He sees his little lot, the lot of all ;  
 Sees no contiguous palace rear its head,  
 To shame the meanness of his humble shed ;  
 No costly lord, the sumptuous banquet deal,  
 To make him loathe his vegetable meal :  
 But calm, and bred in ignorance and toil,  
 Each wish contracting, fits him to the soil.  
 Cheerful at morn, he wakes from short repose,  
 Breathes the keen air, and carols as he goes ;  
 With patient angle trolls the finny deep,  
 Or drives his venturous ploughshare to the steep ;  
 Or seeks the den, where snow-tracks mark the way,  
 And drags the struggling savage into day.

At night returning, every labour sped,  
 He sits him down the monarch of a shed ;  
 Smiles by his cheerful fire, and round surveys  
 His children's looks, that brighten at the blaze ;  
 While his loved partner, boastful of her hoard,  
 Displays her cleanly platter on the board :  
 And haply, too, some pilgrim thither led,  
 With many a tale repays the nightly bed.  
 Thus every good his native wilds impart,  
 Imprints the patriot passion on his heart ;  
 And ev'n those hills that round his mansion rise,  
 Enhance the bliss his scanty fund supplies :  
 Dear is that shed to which his soul conforms,  
 And dear that hill which lifts him to the storms ;  
 And as a child, when scaring sounds molest,  
 Clings close and closer to the mother's breast ;  
 So the loud torrent, and the whirlwind's roar,  
 But bind him to his native mountains more.

GOLDSMITH.



## LESSON VI.

### THE ESTABLISHMENT OF THE CHURCH.

|             |              |            |
|-------------|--------------|------------|
| Parthians   | Arabians     | visible    |
| Medes       | consummated  | doubtful   |
| Mesopotamia | illumination | timorous   |
| Egypt       | prevaricated | courageous |
| Lybia       | covenant     | undaunted  |
| Crete       | inseparably  | proselytes |

THE work of redemption had been consummated ; the son of God had returned to his throne

in heaven, after he had left to his apostles the command to preach the Gospel to every creature. For this vast undertaking they required greater strength and illumination—the gifts of the Holy Ghost, to await whose descent they remained at Jerusalem, as they had been directed by their Lord. In the mean time they performed nothing except the election of another apostle, Matthias, in the place of him who had prevaricated. On the festival day, on which the giving of the Old Law on Mount Sinai was celebrated, the perfection of the New Covenant in the Christian Church was effected. The Holy Ghost descended upon the apostles and assembled disciples in the form of fiery tongues, and imparted itself to the new-born Church, that was then collected in one place. Henceforth it continued as the living soul inseparably infused into the body of the Church, preserving it in unity of faith and love. Its influence upon the apostles soon became visible: weak as they were before in faith, doubtful and timorous, they now displayed minds full of faith and of understanding, fervent, courageous, and undaunted, which not even the threat of death could subdue. The festival had drawn to Jerusalem Jews and proselytes from every nation of the earth. These, Parthians and Medes, inhabitants of Mesopotamia, and of the provinces of Asia; Jews from Egypt, Rome, and Lybia; Cretes and Arabians, stood in astonishment when they heard, in their own languages, the wonderful things of God, spoken by the apostles; and so powerful was the effect of

the inspired word of God, coming from the mouth of Peter, that in one day three thousand converts added themselves to the Church. Many of these, returning to their native lands, bore with them the seeds of the divine word; so that the apostles, when they went from Jerusalem to preach to the whole world, found in many places the way opened before them. The cure of the lame man in the portico of the temple, and the discourse addressed to the wondering multitudes, by St. Peter, increased the number of believers to five thousand. But the princes of the Jews could no longer remain silent; the priests and sadducees, enraged by the intelligence of our Lord's resurrection, hastened to the temple, seized Peter and John, cast them into prison, and on the following day, placed them before their tribunal. When the prince of the apostles spoke to the council, proving the necessity of believing in Him whom they had crucified, his accusers could do no more than dismiss him, with a severe prohibition of again teaching in the name of Christ. "Judge ye, if it be just in the sight of God to hear you rather than God," was the generous answer of the disciple of Christ.

DÖLLINGER.

## LESSON VII.

## ESTABLISHMENT OF THE CHURCH (CONTINUED).

|           |            |              |
|-----------|------------|--------------|
| Ananias   | externally | voluntary    |
| Saphira   | transition | obstinate    |
| Mosaic    | synagogue  | annihilation |
| retaining | recognized | dispersion   |
| celebrate | accession  | consequent   |
| sacrifice | iniquity   | rejection    |

THE first fervour of faith and of love was so strong among the faithful in the Mother-Church, that not only did they live as one family, but the rich brought their treasures to the apostles to be by them applied to the necessities of the poor. This community of goods, however, did not extend to an entire deprivation of property; it was not imposed as a duty, nor did it extend to other Churches. But when Ananias and Saphira had endeavoured to deceive the apostle, by retaining, with a lie, a part of the price of their land, the punishment inflicted by St. Peter upon them, taught the assembly that the guilty ones had lied not to man, but to God. The faithful were wont to meet in private dwellings to celebrate the Holy Sacrifice, and to receive the body of the Lord; ("They continued in the breaking of bread"); but they frequented the temple also, and joined in the daily prayers and sacrifices. Externally they lived as Jews, observing the ceremonies of the Mosaic law, although these had become of no avail, as

the Gospel dispensation had entered into their place. It was yet a time of expectation and transition; the Jewish Church had not lost the authority that had been imparted to it by the Almighty; the synagogue still possessed the chair of Moses, the power of which had been recognized by our Lord. The new-born Church had to acquire form and strength by the accession of multitudes of the Gentiles: when this came to pass, and when the synagogue had filled the measure of its iniquity, by its voluntary and obstinate blindness to the increasing light of heaven, then the destruction of Jerusalem and of its temple marked the time for the entire rejection of the synagogue, and of the consequent and exclusive erection of the Church of Jesus Christ.

DÖLLINGER.



## LESSON VIII.

### FOREIGN CURRANTS.

|           |             |              |
|-----------|-------------|--------------|
| Grecian   | probably    | commences    |
| Corinth   | resemblance | sufficiently |
| English   | extremely   | magazines    |
| isthmus   | delicious   | instrument   |
| island    | gathered    | exportation  |
| corrupted | prepared    | trodden      |

THE foreign, or dried currants, are a species of small raisins or grapes, which grow chiefly in the Grecian islands. They were formerly very



abundant in the Isthmus of Corinth, and were thence called Corinths; this term has been corrupted into currants, probably from their resemblance to the English fruit of that name. These little grapes have no stones, and are of a reddish black colour; they are extremely delicious when fresh gathered. The harvest commences in August; and as soon as the grapes are gathered, they are spread to dry on a floor, prepared for the purpose by stamping the earth quite hard. This floor is formed with a gentle rising in the middle, that the rain, in case any should fall, may flow off and not injure the fruit. When sufficiently dry, the currants are cleaned and laid up in magazines, where they are so closely pressed together, that when a supply is needed, it is dug out with an iron instrument. They are packed in large casks for exportation, and trodden down by the natives.

MAYO.



## LESSON IX.

### THE HIPPOPOTAMUS, OR RIVER HORSE.

|             |              |             |
|-------------|--------------|-------------|
| Augustus    | ruminating   | succulent   |
| Cleopatra   | divided      | devastation |
| enormous    | mouse-colour | ravages     |
| protruding  | impenetrable | securely    |
| terminated  | gregarious   | enraged     |
| resemblance | nocturnal    | exhibited   |

NEXT to the elephant the Hippopotamus is the largest of quadrupeds, being sometimes above

seventeen feet long from the extremity of the snout to the insertion of the tail, about sixteen round the body ; and although its legs are so short, that its belly nearly touches the ground, yet it stands not less than seven feet high. The head is large, the muzzle swollen, and surrounded with bristles ; the eyes and ears are small, the mouth extremely wide, and the canine teeth, of which there are four, are of enormous size, protruding like tusks, and of texture like ivory ; the tail is short ; on each foot there are four toes, terminated by small hoofs. The stomach bears some resemblance to that of a ruminating animal, being divided into several sacks. The skin is slack, of a mouse-colour, and almost impenetrable to a musket ball. This huge animal is gregarious, and nocturnal in its land habits, lurking during the day in the swamps, or among the reeds, and during night wandering in search of its food, which consists of roots, succulent grasses, rice, or whatever grain it can find growing. The devastation it commits is immense, not only in the quantity that it devours, but in what it tramples down and destroys. But fortunately these ravages do not extend widely, as the hippopotamus seldom ventures far from the river, to which it immediately betakes itself on the approach of danger, and plunging in head-foremost, walks securely on the bottom, only rising occasionally to the surface to draw breath, and merely showing the upper part of its head above the water. It possesses great strength, and has been known to bite a large piece out of a boat, so as

instantly to sink it, and to raise another, containing six men, so high as to upset it. The animal, however, is harmless if not disturbed, but when enraged, is a dangerous comrade. It is sometimes taken in pitfalls, and its flesh is eaten by the natives of Africa. The female brings forth her young upon land, and seldom more than one at a time. We are still but imperfectly acquainted with the habits of the hippopotamus; but it seems to have been well known to the Romans. Augustus exhibited one as an emblem of Egypt, in his triumph over Cleopatra.

AIKMAN'S ANIMAL KINGDOM.



## LESSON X.

### INFLUENCE OF HEAT ON THE CREATION.

|               |                  |             |
|---------------|------------------|-------------|
| Heliotrope    | shrubberies      | artificial  |
| intervenes    | nightingale      | endearment  |
| peaches       | exquisite        | definite    |
| indispensable | anticipation     | tumultuous  |
| vegetable     | susceptibilities | sensibility |
| carolling     | unaltered        | aspirations |

WHEN the warm gales of spring have once breathed on the earth, it soon becomes covered, in field and in forest, with its thick garb of green, and soon opening flowers or blossoms are everywhere breathing back again a fragrance to heaven. Among these, the heliotrope is seen always turning its beautiful disc to the sun, and many deli-

cate flowers, which open their leaves only to catch the direct solar ray, closing them often even when a cloud intervenes, and certainly, when the chills of night approach. On the sunny side of a hill, or in the sheltered crevice of a rock, or on a garden wall with warm exposure, there may be produced grapes, peaches, and other delicious fruits, which will not grow in situations of an opposite character, all acknowledging heat as the immediate cause, or indispensable condition, of vegetable life. And among animals, too, the effects of heat are equally remarkable. The dread silence of winter, for instance, is succeeded in spring by one general cry of joy. Aloft in the air the lark is everywhere carolling; and in the shrubberies and woods, a thousand little throats are similarly pouring forth the songs of gladness; during the day, the thrush and blackbird are heard above the rest, and in the evening, the sweet nightingale; for all birds, it is the season of love and of exquisite enjoyment. It is equally so for animals of other kinds; in favoured England, for instance, in April and May, the whole face of the country resounds with lowing, and bleating, and barking of joy. Even man, the master of the whole, whose mind embraces all times and places, is far from being insensible to the change of season. His far-seeing reason, of course, draws delight from the anticipation of autumn, with its fruits; and his benevolence rejoices in the happiness observed among all inferior creatures; but independently of these considerations, on his own frame the re-

turning warmth exerts a direct influence. In his early life, when the natural sensibilities are yet fresh, and unaltered by the habits of artificial society, spring, to man, is always a season of delight. The eyes brighten, the whole countenance is animated, and the heart feels as if new life were come, and has longings for fresh objects of endearment. Of those who have passed their early years in the country, there are few, who, in their morning walks in spring, have not experienced, without very definite cause, a kind of tumultuous joy, of which the natural expression would have been, how good the God of nature is to us! Spring, thus, is a time when sleeping sensibility is roused to feel, that there lies in nature more than the grosser sense perceives. The heart is then thrilled with sudden ecstasy, and wakes to aspirations of sweet acknowledgment.

ARNOTT.

## LESSON XI.

### FORGIVENESS OF INJURIES.

|                 |            |               |
|-----------------|------------|---------------|
| Stephen         | opposition | unaccountable |
| characteristics | objections | perversity    |
| regeneration    | ineffable  | worshipping   |
| inheritance     | generation | paganism      |
| meditation      | repentance | intelligible  |
| sacraments      | testimony  | executioners  |

It is one of the brightest characteristics of Catholic morality, one of the grandest results of its autho-

rity, that it has anticipated every sophism of the passions, by a precept, and by an express declaration. So when it was disputed, whether men of a different colour from Europeans, should be considered as men or not; the Church, by pouring on their heads the water of regeneration, put to silence, as far as in her lay, these shameful discussions, and declared them to be brethren in Christ Jesus; men called to partake of his inheritance. More than this, Catholic morality even removes those causes, that opposed an obstacle to the fulfilment of these two great duties, the hatred of error, and the love of men; for she forbids all pride, attachment to earthly things, and all that tends to destroy charity. She also furnished us with the means of fulfilling both; and these means are all those things that lead the mind to the knowledge of justice, and the heart to the love of it; meditation on our duties, prayer, the sacraments, distrust in ourselves, and confidence in God. The man who is sincerely educated in this school, elevates his benevolence to a sphere far beyond all opposition, interests, or objections, and this perfection, even in this life, receives a great reward. To all his moral victories there succeeds a consoling calm; and to love in God; all those whom we would hate according to the reason of the world, becomes, to a soul that was born to love, a sentiment of ineffable delight.

He who gave the first example of this was certainly higher than the angels, but was at the same time a man; and in his designs of mercy, he de-

sired that his conduct should become a model for every one of his followers to imitate. The Redeemer prayed for his murderers as he was expiring. That generation still continued, when Stephen entered the first on that career of blood, which the God-Man had opened. Stephen, with divine wisdom seeking to illuminate his judges and the people, and to call them to saving repentance, oppressed with blows and ready to seal his testimony with his blood, yielding his spirit to the Lord, makes no other prayer in reference to those who slew him, than, "Lord, lay not this sin to their charge. And having so said, he fell asleep." Such was the conduct of the Christians throughout those ages, in which men persisted in the unaccountable perversity of worshipping the idols they had made with their own hands, and killing the just; and such has ever been the conduct of all true Christians; the horrid repose of paganism they never disturbed; no, not even by their groans. What more can be done to preserve peace with men, than to love them, and to die? That this doctrine was consistent with itself, and very dear to Christian understandings, we shall be forced to admit, when even children found it intelligible; for, faithful to the instructions of their mothers, they even smiled at their executioners; those who sprung up, imitated those who fell before them—first fruits of the saints—flowers that blossomed beneath the sickle of the reaper.

MANZONI.

## LESSON XII.

## HYMN OF A CHILD AT WAKING.

FATHER ! before whose majesty  
My own dear father bends his knee,  
Whose name my mother hears, to bow  
In lowly reverence her brow.

They say yon radiant orb of light  
Is but the plaything of thy might ;  
But as a sparkling lamp to thee  
Is all his glowing brilliancy.

They say the little birds of song,  
That charm the plain, to thee belong ;  
The soul in infant hearts, like mine,  
That know and worship thee, is thine.

They say, 'tis thou that makest fair  
The flower that scents the summer air ;  
The fruits that teem in autumn's hour,  
Come from thy goodness and thy power.

Thy bounty spreads a rich repast,  
Where'er their lot of life be cast,  
For all invited to the feast,  
Alike the greatest and the least.

\* \* \* \* \*



O God! my lisping lips proclaim  
 That word the angels fear to name;  
 An infant even his voice may raise  
 Among the choirs that hymn thy praise.

They say the sounds are ever dear,  
 That infancy breathes to his ear;  
 His love the precious recompense  
 Of its unconscious innocence.

They say that nought beneath the skies,  
 Like to its prayers before him rise;  
 That round him angels hover near,  
 And we are like the angels here!

Ah! since he hears, so far away,  
 The words that we so weakly say,  
 I pray his mercy would bestow  
 On all that need it here below.

Give water to the bubbling spring,  
 And plumage to the sparrow's wing;  
 Wool to the lamb, and earth renew  
 With cooling shade and sparkling dew.

Give sickness health, and hunger bread,  
 A shelter to the orphan's head,  
 The light of liberty to all  
 Who pine away in dungeon's thrall.

And to my father, Lord increase  
 Children of piety and peace;  
 Wisdom and grace to me impart,  
 That I may glad my mother's heart.

Truth to my lips, and on my soul  
 Be sanctity's unspotted stole,  
 That in docility and fear,  
 I may advance from year to year.

And may to thee each pious breathing  
 Of mine ascend like incense wreathing,  
 From urns that sweetly smell and shine,  
 Borne by some infant hand like mine.

LA MARTINE.



### LESSON XIII.

#### DEATH OF A YOUNG FRIEND.

|               |               |               |
|---------------|---------------|---------------|
| Conciliated   | suspicion     | interim       |
| exempted      | unkindness    | adherents     |
| original      | chieftain     | wheresoever   |
| transgression | pliancy       | poignancy     |
| serenity      | interview     | indescribable |
| amiable       | communication | short-lived   |

CAOL had an only son, who from his earliest years had conciliated the favour and affection, not only of his father, but of all those by whom he was surrounded. There is none of us, perhaps, who, on looking around in the circle of his acquaintance, may not fix his thoughts upon some sweet and placid characters, to whom innocence and candour appear so natural an inheritance, that one could almost imagine they had been exempted by some special grace, from the consequences of man's

original transgression. Such was the character of the young prince, Usna, and the charm of early innocence was not lost, as it too often happens in the progress of years and education. In him, as time rolled away, the head was not a gainer at the heart's expense, nor was love overlaid by intellect. To judge from the continual serenity that shone in his features, and the affectionate smile which never ceased to play around them, one would have supposed that he belonged to a world and a society where all was amiable, and where suspicion and unkindness were things unknown and unheard of. As to vice, his rank and the vigilance of his instructors secured him from the contagion of its coarser examples, and its interior sentiments seemed as strange to his mind, as its practice to his eyes.

Usna had a young friend, the son of a neighbouring chieftain, who was the constant companion of his sports and studies, and a special object of his affection. Similarity of ages, tastes, and inclinations, had produced in them its wonted influence, and made them, in a manner, necessary to each other. The young Moirni entered, with all the pliancy of friendship, into all the pursuits and pleasures of his young friend, and seemed as if none would have an interest for him in which Usna did not bear a part. Usna had not seen him now for some days, and enjoyed, in anticipation, the pleasures of their approaching interview; the heart-felt joy at meeting, the very delight at being together, the intimate communication of all the

thoughts and sentiments and events that had filled up the interim, since their parting at the last change of the moon. As he approached the dwelling of his friend, he was astonished to see the entrance crowded with the members and adherents of the family, who observed a mournful silence while he drew near. He inquired for Moirni. There seemed a general reluctance to reply. "Dead! Is it possible!" He rushed into the building. There, extended on a funeral couch, he beheld the body of his friend, no longer conscious of his presence. For the first time, no smile appeared upon the lips of Moirni; at his approach, no hand was raised to greet him, no flush of joy passed over the pallid features of his friend. A brief but violent illness had, within the interim between their last meeting and the present, made that warm and loving heart acquainted with a coldness, that it had never known before. Usna could scarce believe his eyes and ears. He gazed in silent astonishment on the closed eyelids and pallid features of his friend, which bore so new and terrible an expression. He had never, until now, looked upon death, and least of all, had death and Moirni ever dwelt together in his thoughts. A horror seized him, which for a time excluded grief. "Dead! Moirni dead!" he repeated continually in his mind. The body was removed, but Usna continued to behold it where-soever he turned his eyes.

For the first time, sorrow seized upon his soul. As he returned to his father's palace, all nature

seemed to have suffered a sudden alteration. The skies, the hills, the woods, the flowers, seemed all to wear a hue of uncertainty and death. His own life appeared to him a thing so frail, that it seemed as if about to pass away on every breeze that shook the surrounding leaves. Every object that had given him pleasure, served now only to give more poignancy to his affliction. Even those to which he had hitherto been bound in love, were regarded by him with an indescribable feeling of anxiety and apprehension.

“Why waste my thoughts upon them?” he said, as his eyes rested on some favourite object. “How long shall I possess them? They, too, may die like Moirni. I see that love is no less the source of pain than of delight, with this sad difference, that the joy is short-lived, but the pain remains. And yet, what is life without it? Why cannot I find something to love, over which death and time can have no power? It is true, I have loved the flowers and sunshine of the summer, yet seen them fade without regret, because, I knew that the next spring would bring them back with all their loveliness and odour. But what spring shall ever restore life and beauty to the inhabitants of the grave! what summer shall bring back Moirni!”

G. GRIFFIN.

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## LESSON XIV.

## DESTRUCTION OF JERUSALEM.

|              |            |              |
|--------------|------------|--------------|
| Paschal      | solemnity  | conquerors   |
| sanhedrim    | citizen    | unparalleled |
| Judaism      | oftentimes | beloved      |
| visionary    | profaned   | flourished   |
| enthusiasts  | barbarous  | implacable   |
| irresistible | theatre    | annihilated  |

AT the first appearance of the insurrection of the Jews against the power of the Romans, the Christians, who partook not of the visionary hopes of the Jewish enthusiasts, and who were mindful of the warnings of their Lord, (Matt. xxiv. 16), fled to Pella in Petrea. Vespasian was sent to Judea to suppress the rebellion, and after he had been proclaimed emperor of Rome, his son, Titus, conducted his irresistible legions to the walls of Jerusalem. The Paschal solemnity had drawn a countless multitude into the city, and whilst their enemy approached from without, all was confusion within. The zealots were engaged in daily and bloody strife; citizen slew citizen, and the blood of the murdered oftentimes profaned the holy of holies in the temple. At length the city was stormed and taken; the temple was burned; more than a million of the inhabitants perished, during the siege and in the attack, by famine, by the sword, or in the flames. Ninety-seven thousand were sent away in chains, for the barbarous sport of their conquerors in the theatre, or to be sold

as slaves in their markets. When the thirst of the Romans for blood and plunder had been sated, the still standing walls of the temple were cast down, and the foundations were uprooted from the earth. The city was razed, and the plough passed over it, as a sign that never should a city or a temple be built there again. Three gates were left standing, to proclaim where Jerusalem once had been. Thus, after a siege unparalleled in the history of war, fell this noble city, the beloved Jerusalem, after it had flourished, under the protection of Heaven, more than two thousand years. The miserable citizens, who had not been carried away in chains, or crucified around the walls of Jerusalem, wandered forlorn over their once happy land. Their descendants, after a vain attempt, in the reign of Adrian, to rebuild their city, were scattered amongst the nations of the earth, where their children may, to this day, be seen, distinct from the nations with whom they live. The seat of the Jewish religion had fallen; the city of sacrifice had been destroyed; that implacable enemy of Christ, the sanhedrim, had been annihilated; it had become evident, even to the most darkened eye, that the time had arrived, in which the Church should spring forth, as the young plant, from the dead seed of Judaism; and should, in a short time, become the vast tree, spreading its branches over the whole earth.

DÖLLINGER.

## LESSON XV.

## THE HABITATION OF MOLES.

|             |               |                 |
|-------------|---------------|-----------------|
| Habitation  | convexity     | distances       |
| deposit     | inundations   | solitude        |
| constructed | subterraneous | securing        |
| peculiar    | passages      | instantaneously |
| partitions  | offspring     | asylum          |
| interweave  | considerable  | subsistence     |

THE habitation where moles deposit their young, merits a particular description ; because it is constructed with peculiar intelligence, and because the mole is an animal with which we are well acquainted. They begin by raising the earth, and forming a pretty high arch. They leave partitions, or a kind of pillars at certain distances, beat and press the earth, interweave it with the roots of plants, and render it so hard and solid, that the water cannot penetrate the vault, on account of its convexity and firmness. They then elevate a little hillock under the principal arch ; upon the latter they lay herbs and leaves, as a bed for their young. In this situation they are above the level of the ground, and, of course, beyond the reach of ordinary inundations. They are, at the same time, defended from the rains by the large vault that covers the internal one ; upon the convexity of which last they rest along with their young. This internal hillock is pierced on all sides with sloping holes, which descend still lower, and serve



as subterraneous passages for the mother to go in quest of food for herself and her offspring. These by-paths are beaten and firm, extend about twelve or fifteen paces, and issue from the principal mansion like rays from a centre. Under the superior vault we likewise find remains of the roots of the meadow saffron, which seem to be the first food given to the young. From this description it appears, that the mole never comes abroad but at considerable distances from her habitation. In their dark abodes they enjoy the placid habits of repose and solitude, the art of securing themselves from injury, of almost instantaneously making an asylum or habitation, and of procuring a plentiful subsistence without the necessity of going abroad. They shut up the entrance of their retreats, and seldom leave them, unless compelled by the admission of water, or when their mansions are demolished by art.

SMELLIE.

## LESSON XVI.

## THE HYENA.

|               |             |             |
|---------------|-------------|-------------|
| Corpulency    | vivacity    | violent     |
| elongated     | susceptible | exhibit     |
| elasticity    | individual  | excessive   |
| articulations | evinced     | exasperate  |
| indecision    | parallel    | serviceable |
| deficient     | extremely   | fidelity    |

THE spotted hyena, in stature and corpulency, resembles a large mastiff. The head, however, is

thicker, and less elongated, and its motions have less freedom and elasticity. The hinder part of the body it carries very low, owing to its constantly keeping the articulations of the hinder legs considerably bent. Its glance is unsteady, for it is dazzled by a strong light, and this gives an additional indecision to its movements. Not that the animal is by any means deficient in force and vivacity. It is susceptible of very violent feelings, and on such occasions, is capable of acting with equal promptness and energy. The sentiments, indeed, which it manifests, however opposite in their natures, are all of a violent character: its hatred and its affection are both equally strong. An individual of this species showed the utmost confidence in all its keepers; and for one in particular, evinced an affection very unusual in wild animals, and parallel to nothing but what we witness daily in the common domestic dog. On the other hand, his hatred was extremely violent, and he often would exhibit excessive rage against persons who had done him no kind of injury. On such occasions, he would tremble with rage, the foam would issue in abundance from his mouth, the hairs of his back would bristle up, and blows had no other effect than to exasperate his anger. He was taken very young, at the Cape of Good Hope, and had been tamed without difficulty. On his arrival in France, his cage having been left partly open, he walked out, and went away before he was observed. As soon as his flight was known, his keepers went to take him,

and saw him enter the cottage of a peasant, very quietly, where he suffered himself to be re-taken without the least opposition. This docility is not peculiar to some individuals of this species, but is common to all. Barrow informs us, in his voyage to the Cape, that the spotted hyena has been tamed in the district of Schrieuburgh, where it is considered more serviceable for the chase than the dog, and fully equal to that animal in intelligence and fidelity.

CUVIER.



## LESSON XVII.

### THE THREE BLACK CROWS.

Two honest tradesmen meeting in the Strand,  
 One took the other briskly by the hand ;  
 " Hark-ye," said he, "'tis an odd story this  
 About the crows !"—" I don't know what it is,"  
 Replied his friend.—" No ! I'm surprised at that ;  
 Where I come from, it is the common chat ;  
 But you shall hear an odd affair indeed !  
 And that it happened, they are all agreed :  
 Not to detain you from a thing so strange,  
 A gentleman who lives not far from 'Change,  
 This week, in short, as all the Alley knows,  
 A vomit took, and threw up *three* black crows !"  
 " Impossible !"—" Nay, but 'tis really true ;  
 I had it from good hands, and so may you."—

"From whom, I pray?"—So, having named the  
man,

Straight to inquire, his curious comrade ran.

"Sir, did you tell?"—relating the affair.

"Yes, sir, I did; and, if 'tis worth your care,

Ask Mr."—such a one—"he told it me;

But, by-the-by, 'twas *two* black crows, not *three*!"

Resolved to trace so wondrous an event,

Quick to the third the virtuoso went.

"Sir,"—and so forth.—"Why, yes; the thing is  
fact,

Though in regard to number not exact:

It was not *two* black crows, 'twas only *one*;

The truth of that you may depend upon;

The gentleman himself told me the case."—

"Where may I find him?"—"Why, in"—such a  
place.

Away he went, and having found him out,

"Sir, be so good as to resolve a doubt."—

Then to his last informant he referr'd

And begged to know, if true what he had heard:

"Did you, sir, throw up a *black* crow?"—"Not I!"—

"Bless me! how people propagate a lie!

Black crows have been thrown up, three, two, and  
one;

And here, I find, all comes at last to *none*!

Did you say nothing of a crow at all?"—

"Crow,—crow,—perhaps I might; now I recall

The matter over."—"And pray, sir, what was't?"

"Why, I was horrid sick, and at the last

I did throw up, and told my neighbour so,

Something that was—as *black*, sir, as a *crow*."

BYRON.

## LESSON XVIII.

## GLASS.

|              |              |           |
|--------------|--------------|-----------|
| Sidon        | vitrified    | ductile   |
| Syria        | furnished    | plastic   |
| alkali       | manufactured | anneal    |
| exposure     | transparent  | calcined  |
| accidentally | incorrosive  | crucibles |
| weather      | fluoric      | operation |

GLASS is made of sand or flint, combined with an alkali, by exposure to intense heat, which causes these substances to melt and unite. This mixture is said to have been discovered accidentally in Syria, by some merchants, who were driven by stress of weather upon its shores. They had lighted a fire upon the sands, to cook their food; the fire was made of the plant called kali, which grows on the sea shore; and the sand, mixing with the ashes, became vitrified by the heat. This furnished the merchants with the hint that led to the making of glass, which was first regularly manufactured at Sidon in Syria. England is now much celebrated for its glass. The qualities which render this substance so valuable, are, that it is hard, transparent, incorrosive, not being affected by any substance but fluoric acid; and that, when fused, it becomes so ductile and plastic, that it may be moulded into any form, which it will retain when cool. There are three sorts of furnaces used in making it: one to prepare the frit, a second to work the glass,

and a third to anneal it. After having properly mixed the ashes and sand, they are put into the first furnace, where they are burned or calcined, for a sufficient time, and become what is called frit. This being boiled afterwards in pots or crucibles of pipe-clay, in the second furnace, is fit for the operation of blowing; the annealing furnace is intended to cool the glass very gradually; for if it be exposed to the cold air immediately after being blown, it will fall into a thousand pieces, as if struck by a hammer. Before glass was invented, thin folia of mica were used for windows.



## LESSON XIX.

### ST. BRIDGET.

|              |                 |              |
|--------------|-----------------|--------------|
| Monasteries  | acquired        | deputation   |
| nunneries    | respective      | commencement |
| enthusiasm   | concurred       | penitents    |
| religious    | superintendence | mendicants   |
| supernatural | peculiarly      | spiritual    |
| attributed   | illustrious     | unusual      |

THE institution of female monasteries, or nunneries, such as, in the fourth century, were established abroad by Melania, and other pious women, was introduced into Ireland, towards the close of the fifth century, by St. Bridget; and so general was the enthusiasm her example excited, that the religious order which she instituted, spread its branches through every part of the country.

Taking the veil herself at a very early age, when, as we are told, she was clothed in the white garment, and the white veil placed upon her head, she was immediately followed, in this step, by seven or eight other young maidens, who, attaching themselves to her fortunes, formed, at the first, her small religious community. The pure sanctity of this virgin's life, and the supernatural gifts attributed to her, spread the fame she had acquired more widely every day, and crowds of young women and widows applied for admission into her institution. At first she contented herself with founding establishments for her followers in the respective districts of which they were natives; and in this task the bishops of the different dioceses appear to have concurred with and assisted her. But the increasing number of those who required her own immediate superintendence, rendered it necessary to form some one great establishment, over which she should herself preside; and the people of Leinster, who claimed to be peculiarly entitled to her presence, from the illustrious family to which she belonged having been natives of their province, sent a deputation to her, to entreat that she would fix among them her residence. To this request the saint assented; and a habitation was immediately provided for herself and her sister nuns, which formed the commencement both of her great monastery, and of the town or city of Kildare. The name of Kill-dara, or cell of the oak, was given to the monastery, from a very high oak-tree which grew near

the spot, and of which the trunk was still remaining in the twelfth century;—no one daring, as we are told by Giraldus, to touch it with a knife. The extraordinary veneration in which St. Bridget was held, caused such a resort of persons of all ranks to this place—such crowds of penitents, pilgrims, and mendicants—that a new town sprang up rapidly around her, which kept pace with the growing prosperity of the establishment. The necessity of providing spiritual direction, as well for the institution itself, as for the numerous settlers in the new town, led to the appointment of a bishop of Kildare, with the then unusual privilege of presiding over all the churches and communities belonging to the order of St. Bridget throughout the kingdom.

MOORE.

## LESSON XX.

### THE CATACOMBS.

|              |              |             |
|--------------|--------------|-------------|
| Constantine  | precaution   | initials    |
| portico      | exhausted    | interwoven  |
| catacombs    | unfrequented | certify     |
| intersection | mysteries    | inscription |
| galleries    | martyred     | indication  |
| labyrinth    | inscribed    | exhalations |

ST. SEBASTIAN'S, a church erected by Constantine in memory of the celebrated martyr whose name it bears, has a handsome portico, and contains



some good pictures and paintings. It is, however, more remarkable for being the principal entrance into the catacombs which lie in its neighbourhood. The catacombs are subterranean streets or galleries, from four to eight feet in height, from two to five in breadth, extending to an immense and almost unknown length, and branching out into various walks. The confusion occasioned by the intersection of these galleries resembles that of a labyrinth, and renders it difficult, and, without great precaution, dangerous, to penetrate far into their recesses. The catacombs were originally excavated, in order to find that earth or sand, called at present, *puzzolana*, and supposed to form the best and most lasting cement. They followed the direction of the vein of sand, and were abandoned when that was exhausted, and oftentimes totally forgotten. Such lone, unfrequented caverns afforded a most commodious retreat to the Christians, during the persecutions of the three first centuries. In them, therefore, they held their assemblies, celebrated the holy mysteries, and deposited the remains of their martyred brethren. For the latter purpose they employed niches in the sides of the walls, placed there the body, with a vial filled with the blood of the martyr, or perhaps some of the instruments of his execution, and closed up the mouth of the niche with thin bricks or tiles. Sometimes the name was inscribed with a word or two, importing the belief and hopes of the deceased; at other times a cross, or the initials of the titles of our Saviour

interwoven, were the only marks employed to certify that the body enclosed, belonged to a Christian. Several bodies have been found without any inscription, mark, or indication of name or profession. Such may have belonged to pagans, as it is highly probable that these cavities were used as burial places, before as well as during the age of persecutions. It is impossible to range over these vast repositories of the dead, these walks of horror and desolation, without sentiments of awe, veneration, and almost of horror. We seemed on entering to descend into the regions of the departed, wrapped up in the impenetrable gloom of the grave. Independent of these imaginary terrors, the damp air and fetid exhalations warn the curious traveller to abridge his stay, and hasten to the precincts of day.

EUSTACE.



## LESSON XXI.

### THE PAPYRUS.

|              |              |              |
|--------------|--------------|--------------|
| Papyrus      | termination  | answering    |
| triangular   | acacia-tree  | sufficiently |
| tapering     | ligature     | experiment   |
| occasionally | scholar      | ascertained  |
| overlap      | pellicle     | saccharine   |
| filaments    | transversely | impregnated  |

THE Papyrus most naturally suggests itself, whenever we turn our attention to the vegetable pro-

ductions of Egypt. The stalk is of a vivid green, of a triangular form, and tapering towards the top. Pliny says that the root is as thick as a man's arm, and that the plant occasionally exceeds fifteen feet in height. At present it is rarely found more than ten feet long, about two feet, or little more, of the lower part of the stalk being covered with hollow sharp-pointed leaves, which overlap each other like scales, and fortify the most exposed part of the stem. These are usually of a yellow or dusky-brown colour. The head is composed of a number of small grassy filaments, each about a foot long. Near the middle, each of these filaments parts into four, and in the point or partition are four branches of flowers, the termination of which is not unlike an ear of wheat in form, but is in fact a soft, silky husk.

This singular vegetable was used for a variety of purposes; the principal of which were, the structure of boats, and the manufacture of paper. In regard to the first, we are told by Pliny, a piece of the acacia-tree was put in the bottom to serve as a keel, to which the plants were joined, being first sewed together, then gathered up at the stem and stern, and made fast by means of a ligature.

But it is as a substance for writing upon that the papyrus is best known, and most interesting to the scholar. The process by which the plant was prepared for this purpose, is briefly stated by the Roman naturalist. The thick part of the stalk being cut in two, the pellicle between the pith and bark, or perhaps the two pellicles, were stripped

off and divided by an iron instrument. This was squared at the sides, so as to be like a riband, then laid upon a smooth table, after being cut into proper lengths. These strips or ribands were lapped over each other by a very thin border, and then pieces of the same kind were laid transversely, the length of these last answering to the breadth of the first. This being done, a weight was laid upon them while they were yet moist; they were then dried in the sun. It was thought that the water of the Nile had a gummy quality sufficiently strong to glue these strips together; but Mr. Bruce, who ascertained by experiment, that this opinion is perfectly groundless, suggests that the effect was produced by means of the saccharine matter with which the papyrus is strongly impregnated. The flower of this plant, it is well known, was used for religious purposes.

CABINET LIBRARY.



## LESSON XXII.

### MANUFACTURE OF TAPE.

|               |            |              |
|---------------|------------|--------------|
| Liverpool     | purchaser  | conveniently |
| Manchester    | assorted   | calender     |
| processes     | willowing  | department   |
| warehoused    | feculent   | powerful     |
| commercial    | apparatus  | material     |
| cotton-broker | continuous | eighteen     |

To trace the various processes a piece of tape passes through, and the various employments it

affords, before it comes into the market, is a very curious and interesting occupation. Beginning, then, with the first commercial operations; the cotton used in the manufacture of tapes, having been warehoused in Liverpool, is sold on account of the importer, and bought to the order of the manufacturer by cotton-brokers. It is conveyed by canal or railway to Manchester; and when delivered at the works of the purchaser, is weighed, assorted, mixed, and spread, with a view to obtain equality in the staple. It is then taken to the *willowing* machine to be opened and rendered feculent; thence it is transferred to the *blowing* machine, which cleans it from dust, and makes it feathery. Attached to the blower is a *lapping* apparatus, by which the cotton is taken up and laid in a continuous fleece upon a roller, in order that it may be conveniently carried to the *carding* engine, there to be made into a fleece of the most equable texture possible; hence it is handed to the *drawing-frame*, where it is blended with the production of all the carding engines, connected with the particular set or system to which it belongs. It is next passed through the *slubbing-frame*, afterwards through the *jack*, or roving-frame, and then through the *throstle*, or spinning-frame, upon which it is made into yarn or twist. From the throstle, the yarn, if intended for warp, is forwarded to the *winding-frame*, but if intended for weft, to the *reeler*; afterwards, that which is wound, is delivered to the *warper*, that which is reeled, to the *pin-winder*. The *weaver* next operates

upon it, passes it through the *loom*, rubs up the tape, and consigns it to the *taker-in*, who examines the fabric, and transfers it to the *putter-out*, who sends it to the *bleacher*. When bleached, it is handed to the *scraper*, whose business it is to take out the creases, and open the tape, by running it under and over iron scrapers. This having been done, the piece is put through the *calender*, where it is pressed between hot bowls, and rendered smooth and glossy. It is next taken to the *lapping* department, where it is neatly folded by young women, after which, the *maker-up* forms the piece into parcels, containing the required quantity, and places them in a powerful press to make them compact. He next papers them, and sends them to the *warehouse*, for sale. Thus, in its progress from the raw material, a piece of tape has afforded employment to the broker of the manufacturer, to the carrier, to the mixer of the cotton, to the tenders of the willow, of the blower, of the carding engine, of the drawing-frame, slubbing-frame, roving-frame, and throstle; to the doffer, bobbin-winder, reeler, warper, pin-winder, weaver, taker-in, putter-out, bleacher, scraper, calender-man, lapper, maker-up, and salesman; or, to at least twenty-five persons, before it leaves the warehouse of the manufacturer, where 12 pieces, of 18 yards each, or 216 yards of cotton-tape, of nearly half an inch in width, and containing 9,170 yards of yarn, are sold for eighteen pence; or 12 yards of finished tape, containing 509 yards of yarn, for the small sum of one penny,

Some idea of the extent to which this manufacture is carried on in Manchester, may be formed from the fact, that, at the works of Messrs. Wood and Westheads, upwards of 1,240,000 yards of goods, not exceeding three inches in width, and composed partly or entirely of cotton, linen, silk, or worsted, are woven in one week, or upwards of 35,227 miles in one year.

MANCHESTER AS IT IS.

### LESSON XXIII.

THE DYING CHRISTIAN TO HIS SOUL.

VITAL spark of heavenly flame !  
 Quit, oh quit this mortal frame :  
 Trembling, hoping, lingering, flying,  
 Oh the pain, the bliss of dying !  
 Cease, fond nature, cease thy strife,  
 And let me languish into life !  
 Hark ! they whisper—angels say,  
 “ Sister spirit, come away ! ”  
 What is this absorbs me quite ?  
 Steals my senses, shuts my sight,  
 Drowns my spirits, draws my breath ?  
 Tell me, my soul, can this be death ?  
 The world recedes ! it disappears !  
 Heaven opens to my eyes !—my ears  
     With sounds seraphic ring !  
 Lend, lend your wings ! I mount ! I fly !  
 O grave ! where is thy victory ?  
 O Death ! where is thy sting ?

POPE.

## LESSON XXIV.

## HYMN TO THE BLESSED VIRGIN.

AVE MARIA ! maiden mild !

Listen to a maiden's prayer ;

Thou canst hear, though from the wild,

Thou canst save amid despair.

Safe may we sleep beneath thy care,

Though banished, outcast, and reviled—

Maiden ! hear a maiden's prayer ;

Mother, hear a suppliant child !

AVE MARIA !

Ave Maria ! undefiled !

The flinty couch we now must share,

Shall seem with down of eider piled,

If thy protection hover there.

The murky cavern's heavy air

Shall breathe of balm, if thou hast smiled

Then, Maiden ! hear a maiden's prayer,

Mother, list a suppliant child.

AVE MARIA !

Ave Maria ! stainless styled !

Foul demons of the earth and air,

From this their wonted haunt exiled,

Shall flee before thy presence fair.

We bow us to our lot of care,

Beneath thy guidance reconciled ;

Hear for a maid a maiden's prayer,

And for a father hear a child !

AVE MARIA !

SCOTT.



## SECTION IV.

## LESSON I.

## NATURAL DIVISIONS OF THE EARTH.

|               |             |             |
|---------------|-------------|-------------|
| Diameter      | consisting  | comprehends |
| circumference | numerous    | estimated   |
| continents    | Pacific     | divisions   |
| hemispheres   | Australasia | population  |
| principally   | Atlantic    | probable    |
| comparatively | remaining   | Polynesia   |

THE figure of the earth is nearly that of a sphere or globe, about 7,912 English miles in diameter, and 24,856 miles in circumference. Its surface, which is divided into *land* and *water*, is 198 millions of square miles in extent. The land is divided into two great *continents*, the eastern and western, situated principally in opposite *hemispheres*, and occupying something less than one-third of the earth's surface. The *eastern* continent is 31 millions of square miles in extent, and is said to contain 760 millions of inhabitants. It comprises Europe, Asia, and Africa, and is called the *Old World*. The *western* continent contains 17 millions of square miles, and a population of about 40 millions. It is divided into *North* and *South* America, and, because discovered at a comparatively late period, is called the *New World*. To these grand divisions, another has been added,

consisting of numerous islands in the Pacific Ocean, under the general name of *Australasia*, or Southern Asia, the extent of which may be estimated at five millions of square miles, and its inhabitants, at twenty millions.

The water is divided into five great *oceans*; the Pacific, Atlantic, Northern, Southern, and Indian. The Atlantic bounds Europe and Africa on the west, and North and South America on the east. The Pacific divides Asia from America. The Indian lies south of Asia, and east of Africa, and extends to about forty degrees south latitude. The Northern Ocean bounds Europe, Asia, and North America on the north. The Southern extends round the South Pole, and unites with the Indian, Atlantic, and Pacific Oceans. These five oceans, with their numerous branches which form the *inland seas*, occupy at least 142 millions of square miles. The remaining 56 millions form the five portions of land already mentioned, of which Europe contains four; Asia, sixteen; Africa, eleven; and America, seventeen millions. *Australasia*, which comprehends New-Holland and the adjacent islands, may be estimated at five millions. *Polynesia*, or the numerous smaller islands, scattered over the Pacific Ocean, and not included in the great divisions, may possibly occupy the remaining three millions. The whole population of the earth is variously stated. The most probable estimate is, that it does not much exceed 800 millions.

## LESSON II.

## THE REIN-DEER.

|              |              |             |
|--------------|--------------|-------------|
| Laplander    | civilization | emergency   |
| Norway       | tolerable    | incredible  |
| Finmark      | venison      | astronomer  |
| inseparable  | independent  | experienced |
| connexion    | peculiarity  | inexpert    |
| domesticated | endurance    | persevering |

THE rein-deer is a native of the polar regions, another of the many forcible examples of the inseparable connexion of animals, with the wants of human society, and of the goodness of God, in providing for his creatures. The rein-deer has been domesticated by the Laplanders from the earliest ages; and has alone rendered the dreary regions in which this portion of mankind abides, at all supportable. The civilization of those extreme northern regions entirely depends upon the rein-deer. A traveller going from Norway to Sweden, may proceed with ease and safety even beyond the polar circle, but when he enters Finmark, he cannot stir without the rein-deer. The rein-deer alone connects two extremities of the kingdom, and causes knowledge and civilization to be extended over countries, which, during a great part of the year, are cut off from all communication with the other portions of mankind.

As camels are the chief possession of an Arab, so the rein-deer comprise all the wealth of a Laplander. The number of deer belonging to a herd

is ordinarily from three hundred to five hundred ; with these a Laplander can do well, and live in tolerable comfort. He can make in summer a sufficient quantity of cheese for the year's consumption ; and during the winter season, can afford to kill deer enough to supply him and his family pretty constantly with venison. With two hundred deer, a man, if his family is small, can manage to get on. If he has but one hundred, his subsistence is very precarious, as he cannot rely entirely upon them for support. Should he have but fifty, he is no longer independent, nor able to keep a separate establishment.

As the winter approaches, the coat of the reindeer begins to thicken in the most remarkable manner, and assumes that colour which is the great peculiarity of polar quadrupeds. During the summer, this animal pastures upon green herbage, and browses upon the shrubs which he finds in his march ; but in winter, his sole food is the lichen or moss, which he instinctively discovers under the snow.

Harnessed to a sledge, the rein-deer will draw about three hundred pounds, though the Laplanders generally limit their burdens to two hundred and forty pounds. The trot of the rein-deer is about ten miles an hour, and their power of endurance is such, that journeys of one hundred and fifty miles, in nineteen hours, are not uncommon. There is a portrait of a rein-deer, in one of the palaces of Sweden, which is said to have drawn, upon an occasion of emergency, an officer, with

important despatches; the incredible distance of eight hundred English miles, in forty-eight hours. Pictet, a French astronomer, who visited the northern parts of Lapland in 1769, for the purpose of observing the transit of Venus, started three rein-deer in light sledges for a short distance, which he actually measured, in order to know their speed, and the following was the result: the first deer performed three thousand and eighty-nine feet in two minutes, being at the rate of nearly nineteen English miles in an hour; the second did the same in three minutes; and the third, in three minutes and twenty-six seconds: the ground chosen for the race was nearly level. The rein-deer requires considerable training, to prepare him for sledge travelling, and he always demands an experienced driver. Sometimes when the animal is ill broken, and the driver inexperienced, the deer turns round, and rids himself of his burden, by the most furious assaults; but such instances of resistance are exceptions. He is ordinarily so docile, that he scarcely needs any direction, and so persevering, that he toils on, hour after hour, without any refreshment, except a mouthful of snow, which he hastily snatches. To the Laplanders, this animal is a substitute for the horse, the cow, the sheep, and the goat; the milk affords them cheese; the flesh, food; the skin, clothing; the horns, glue; the bones, spoons; the tendons, bow-strings, and when split, thread. A *rich* Laplander has sometimes more than a thousand rein-deer.

## LESSON III.

## VIRTUES OF THE EARLY CHRISTIANS.

|              |             |                |
|--------------|-------------|----------------|
| Believed     | replenished | evangelical    |
| animated     | fraternal   | irregularities |
| appropriated | behaviour   | sanctified     |
| relieved     | imbibed     | everlasting    |
| consolation  | honoured    | liberality     |
| indicated    | incident    | co-operating   |

IN the practice of religion nothing can appear more charming than the picture drawn by St. Luke, of the infant Church, in his Acts of the Apostles. He assures us, that the vast numbers who believed in Jesus Christ, had but one heart and one soul. All being animated with the same spirit, they were united in the same bonds of perfect charity. No one appropriated the least thing to himself, exclusive of his neighbour; for all things were common amongst them. They who sold their lands or houses, brought their money to the Apostles for the public use, that each one might be relieved according to his wants. Each person's wants were no sooner known, than charitably supplied. The consolation of the Holy Ghost dwelt amongst them; their placid looks indicated the spiritual sweetness, that replenished their souls. Their fervent piety embraced every kind of public virtue in an eminent degree. Their hospitality, their attention to the social duties of fraternal charity, their daily presence in the temple at the stated

hours, their devout behaviour during the solemn service of religion, drew respect from all who beheld them. Such is the character St. Luke has given us of the first Christians of Jerusalem. The virtues of the converted Gentiles were not less solid, as we gather from the epistles of St. Paul, though upon the whole, perhaps, not so sublime. Before the Apostles came amongst them, the Gentiles had imbibed no principle of true religion, and had seen no exercise of that pure worship, by which the sovereign Lord of all things is duly honoured in spirit and in truth. Bewildered in the labyrinth of infidelity, and debauched by the licentious absurdities of idolatry, they were not only destitute of real virtue, but deeply tainted with almost every vice incident to corrupt nature. But no sooner were they instructed in the principles of Christianity, and cleansed from sin in the waters of Baptism, than they became the faithful imitators of their evangelical teachers. A total change of principle and manners made them objects of admiration, to the former companions of their irregularities. Prayer was the occupation of their leisure hours, and a sincere desire of doing the will of God in all things sanctified their most ordinary actions of the day. Tertullian speaks of the pious custom they had of making the sign of the cross on every occasion, as a mark of their lively faith and confidence in the merits of their crucified Redeemer. Hence, in the midst of temporal concerns they never lost sight of eternal goods ; while their hands were at work,

their hearts aspired to heaven. The prospect of an everlasting reward, which they knew God had prepared for them in his kingdom of glory, quickened their diligence in the discharge of every social and religious duty. Which of the two are we to admire most, the bounteous liberality of God in communicating his graces to those fervent Christians, or the fidelity of those Christians in thus co-operating with the divine gifts? To our humble admiration of the first, let us join our imitation of the second; we then shall pay honour to them both.

REEVE.

#### LESSON IV.

##### THE FLOWER EVERLASTING.

|             |              |              |
|-------------|--------------|--------------|
| Fidelity    | described    | indifference |
| exactness   | recreation   | diligently   |
| application | referred     | rationality  |
| occupied    | distinction  | amusement    |
| employment  | sacrifice    | society      |
| devotion    | professional | worldling    |

“It seems to live, but it is dead.” It is an emblem of the perfect Christian, who lives in the world, but does not forget the Gospel of Christ. He discharges the business of his station for God’s sake with fidelity and exactness. He even excels the worldling in industry, and in application to his professional employments. Like the early converts



described in the Acts of the Apostles, he takes his food and drink "with gladness and simplicity of heart." His countenance is always pleasant and agreeable, nor does it lose this character, even when zeal kindles on his features, or devotion burns in his eyes. When he is occupied in his profession, his heart often looks heavenward, and says to God, "I do this for thee." When he eats and drinks he does the same; when he toils he does the same; and when he rests, he rests for God. Recreation, as well as labour, is with him a sacrifice. Nothing that falls within the circle of his duty is too high, or too low, to be referred to God. The round of his external occupations is often almost the same as that of a man of the world: it is the "hidden sanctity" that makes all the distinction in merit. It is the difference of motive that saves the one and damns the other. To an indifferent eye it might appear that the true Christian often shares as largely in the things of earth, as the worldling, who seldom or never thinks of heaven. The latter sees him labour diligently, converse freely and rationally, take his meals cheerfully, unbend his strength in agreeable recreation, go quietly to rest at night, and mingle rationally in the amusements of society. "I am as good as he," exclaims the worldling, "for I do as he does." Ah no!—The flower before me seems the same as when it grew upon the tree in summer; it has the hue, the smell, in everything the likeness of a living flower. Such seems the Christian life in the eye of the worldling; but such it is not within. He "seems to live, but he is dead."

G. GRIFFIN.

## LESSON V.

## DEVOTION.—A VISION.

METHOUGHT I roved on shining walks,  
 'Mid odorous groves and wreathed bowers,  
 Where, trembling on their tender stalks,  
 Fresh opening bloom'd the early flowers;  
 Thick hung the fruit on every bough,  
 In ripe profusion clustering mellow,  
 While o'er the peak'd horizon's brow  
 The evening ray fell slant and yellow.

Slow pacing through the fragrant shade,  
 With calm majestic mien advancing,  
 O'erawed, I saw a queenly maid,  
 With piercing eyes divinely glancing;  
 Deep wonder chain'd my reverent tongue,  
 My frame was bent with greeting lowly,  
 While silence o'er the garden hung,  
 As if the ground she trod was holy.

"And who art thou," with eager tone,  
 I cried aloud, "whose presence thrilling,  
 Though lately seen, and yet unknown,  
 Can reach the inmost springs of feeling?  
 And oh! what sweet secluded scene,  
 Here shines in rural beauty splendid;  
 Where summer bloom and vernal green  
 With ripe autumnal wealth are blended!"

With smiles that broke as sunshine bright,  
 Their lustre to my soul imparting,  
 And tones that sent a pure delight,  
 Delicious through my bosom darting ;  
 "Devotion is my name," she said,  
 "And thine are those delicious bowers,  
 From purest fountains ever fed,  
 And bright with undecaying flowers.

"In this sweet haunt, thy blissful life  
 Shall glide, like meadow-streamlet flowing,  
 Unreach'd by sounds of demon strife,  
 Unknown to passion and unknowing ;  
 For thee the fragrant airs shall rise,  
 For thee shall bloom those opening roses ;  
 Till far beyond yon trembling skies,  
 Thy heart in endless peace reposes.

"Yes—thine shall be this calm retreat,  
 Of summer bloom and peaceful beauty ;  
 If thou observe, with prudence meet,  
 And watchful care, one easy duty :  
 'Tis but to tend yon golden lamp,  
 With faithful hand and spirit heeding,  
 From wasting airs and vapours damp,  
 Its pointed flame attentive feeding.

"While heavenward thus attending bright,  
 In holy lustre still increasing ;  
 Thou keep'st that pure unearthly light,  
 With vestal heed and care unceasing ;

Sweet peace of heart shall haunt thy bow'r,  
 And safety watch unceasing near thee ;  
 And happy in thy parting hour,  
 Celestial truth shall stop to cheer thee.

“ But if the faithless thirst of change,  
 Or slow consuming sloth should move thee,  
 Then dread those countless foes that range,  
 Terrific in the air above thee.  
 They cannot pierce this radiant sphere,  
 While faithful hands that flame shall cherish,  
 But wo to thee, if slumbering here,  
 Thou leave its saving light to perish.”

Upward I look'd, with shuddering awe,  
 And in the growing gloom that bound us,  
 Full many a dismal shape I saw,  
 Slow winging in the air around us :  
 Grim-visaged death, and fierce despair,  
 Hard unbelief, with aspect sneering ;  
 And ruin, with affrighted stare,  
 Disastrous through the mist appearing.

Heart-stricken at the direful sight,  
 Awhile I stood appall'd in spirit,  
 But cheer'd by that celestial light,  
 I took my lonely station near it :  
 Dissolving on the fragrant air,  
 No more I saw that form before me,  
 But by the sweetness breathing there,  
 I felt her influence still was o'er me.

Awhile I kept, with watchful heed,  
 My task of duty and of pleasure;  
 Exact, at noon and eve, to feed  
 That holy flame, with ample measure;  
 Those smiling walks, and various flowers,  
 Each day I hail'd with bosom fonder,  
 Nor e'er beyond those happy bowers,  
 Indulged the idle thought to wander.

G. GRIFFIN.

## LESSON VI.

### ON LIGHT.

|              |             |             |
|--------------|-------------|-------------|
| Phenomena    | universe    | illuminated |
| constitute   | regularity  | revealing   |
| utility      | omnipresent | miniature   |
| reflection   | intervenes  | microscope  |
| unchangeable | conceivable | admirable   |
| absolutely   | tediously   | telegraph   |

THE phenomena of light and vision have always been held to constitute a most interesting branch of natural science, whether in regard to the beauty of light, or its utility. The beauty is seen spread over a varied landscape—among the beds of the flower gardens, on the spangled meads, in the plumage of birds, in the clouds around the rising and setting sun, in the circles of the rainbow. And the utility may be judged of by the reflection, that if man had been compelled to supply his

wants by groping in utter and unchangeable darkness, he could scarcely have secured his subsistence for a single day. Light, then, while the beauteous garb of nature, clothing the garden and the meadow,—glowing in the ruby—sparkling in the diamond,—is also the absolutely necessary medium of communication between living creatures and the universe around them. The rising sun is what converts the wilderness of darkness which night covered, and which, to the young mind not yet aware of the regularity of nature's changes, is so full of horror, into a visible and lovely paradise.—When a mariner, who has been toiling in midnight gloom and tempest, at last perceives the dawn of day, or even the rising of the moon, the waves seem to him less lofty, the wind is only half as fierce, and hope and gladness beam on him with the light of heaven. A man, wherever placed in light, receives by the eye from every object around, nay, from every point in every object, and at every moment of time, a messenger of light, to tell him what is there, and in what condition. Were he omnipresent, or had he the power of flitting from place to place with the speed of the wind, he could scarcely be more promptly informed. Then, in many cases, where distance intervenes not, light can impart knowledge, which, by any other conceivable means, could come only tediously, or not at all. For example, when the illuminated countenance is revealing the secret workings of the heart, the tongue would in vain try to speak, even in long phrases, what one smile

of friendship or affection can in an instant convey :—and had there been no light, man never could have suspected the existence of the miniature worlds of life and activity, which, even in a drop of water, the microscope discovers to him; nor could he have formed any idea of the admirable structure of many minute objects. It is light, again, which gives the telegraph, by which men readily converse from hill to hill, or across an extent of raging sea; and it is light which, pouring upon the eye through the optic tube, brings intelligence of events passing in the remotest regions of space.

ARNOTT.

## LESSON VII.

### THE COLOSSUS. AT RHODES.

|                |               |            |
|----------------|---------------|------------|
| Reconciliation | arsenals      | replacing  |
| testimonial    | destroyed     | intention  |
| accordingly    | prodigious    | prohibited |
| additional     | contributions | computed   |
| Colossus       | amounted      | deduction  |
| stupendous     | sustained     | diminution |

DEMETRIUS, on his reconciliation with the Rhodians, was desirous, before his departure, to give them a testimonial of his friendly disposition; he accordingly presented them with all the engines of war that he had employed in the siege. These they afterwards sold for three hundred talents, equal in value to three hundred thousand crowns, which

they employed, with an additional sum of their own, in making their famous Colossus, (A. M. 3708), which was reputed one of the seven wonders of the world. It was a statue of so stupendous a size, that ships in full sail passed under its legs; the height of it was seventy cubits, or one hundred and five feet, and few men could clasp their arms round its thumb. It was the work of Chares of Lindus, and employed him for the space of twelve years. In the year of the world, 3782, Rhodes suffered very considerable damages from a great earthquake. The walls of the city, together with the arsenals, and the narrow passes in the haven, where the ships of that island were laid up, were reduced to a very ruinous condition; and the famous Colossus, which passed for one of the wonders of the world, was, sixty-six years after its erection, thrown down and entirely destroyed. This Colossus was, as I have observed, a brazen statue of a prodigious size; and some authors have affirmed, that the money arising from the contributions already mentioned, amounted to five times as much as the loss which the Rhodians had sustained. This people, instead of employing the sums they had received, in replacing that statue, agreeably to the intention of the donors, pretended that the oracle of Delphi had prohibited them from the attempt, and given them a command to preserve the money for other purposes, by which means they afterwards enriched themselves. The Colossus lay neglected on the ground for the space of eight hundred and ninety-four years, at the expiration



of which, (A. D. 672), Moawias, the sixth emperor of the Saracens, made himself master of Rhodes, and sold this statue to a Jewish merchant, who loaded nine hundred camels with the metal, which, computed at eight quintals for each load, after a deduction of the diminution the statue had sustained by rust and other casualties, amounted to more than thirty-six thousand pounds sterling.

ROLLIN.

## LESSON VIII.

### EUROPE.

|          |         |             |
|----------|---------|-------------|
| England  | Belgium | Russia      |
| Scotland | Holland | Prussia     |
| Ireland  | Germany | Austria     |
| France   | Denmark | Switzerland |
| Spain    | Norway  | Italy       |
| Portugal | Sweden  | Greece      |

THE smallest, but by far the most important of the great divisions of the earth, is Europe ; it excels all the others in science, literature, arts, and manufactures. Its length, from the North Cape, in Lapland, to Cape Matapan, in Greece, is 2,400 miles ; and its breadth, from Cape La Hogue, in France, to the River Don, in Russia, 2,200 miles. It is bounded *north*, by the Northern Ocean ; *west*, by the Atlantic Ocean ; *south*, by the Mediterranean Sea ; *east*, by the Archipelago, the Sea of Marmora, the Black Sea, the Sea of Azof,

and Asia. The population is estimated at 230 millions. Europe is divided into the following countries: England, Scotland, Ireland, France, Spain, Portugal, Belgium, Holland, Germany, Denmark, Norway, Sweden, Russia, Prussia, Austria, Switzerland, Italy, Turkey, and Greece.

Europe is the north-western part of the old continent, of which it forms about one-seventh. It contains four millions of square miles, being about one-fourth of the extent of Asia, and something more than one-third of that of Africa. It presents, in proportion to its surface, a much greater extent of coast than any other of the great divisions of the earth. This is occasioned by its numerous peninsulas, formed by inland seas and gulfs, which penetrate far into the continent, and greatly facilitate commercial intercourse. The length of the coast-line, commencing at the northern extremity of the sea of Azof, and terminating at the mouth of the River Kara, is nearly equal to the earth's circumference. Nearly two-thirds of the surface of Europe consist of an immense plain; the remainder is occupied by mountains of greater or less elevation, and these are principally extended along its southern and western shores. The plain stretches across the eastern boundary, from the shores of the Black Sea to those of the Northern Ocean; and, if smaller eminences be not taken into account, it may be said to extend from the Ural mountains through Russia, Poland, Prussia, and Holland, to the German Ocean, including an area of nearly three millions of square miles.

The islands of Europe are numerous and important. Great Britain and Ireland form the most powerful kingdom in the world. Iceland is full of interest, whether we regard its history, or its natural phenomena. The Balearic islands were as famous in ancient, as Corsica is in modern times. And the names of Sicily and Crete are closely connected with the histories of Greece and Rome.

The climate of Europe is much more temperate than that of any other portion of the globe of equal extent. It may be divided into three zones; the northern, middle, and southern, the boundaries of which may be marked by the parallels of 46 and 58 degrees of north latitude. In the northern zone there are only two seasons; summer and winter. In the central or middle zone, the four seasons are distinct; while in the southern, vegetation is very little interrupted, frost and snow being seldom seen except upon the mountains. The vegetable productions of the southern zone differ little from those of northern Africa and the adjacent islands. Vines, olives, figs, oranges, maize, and rice, are abundant; and the castor-oil and cotton-plants, as well as the sugar-cane, are, in some instances, cultivated. In the middle zone, all kinds of grain are produced in great abundance, and, in many of its countries, the science of agriculture has attained a high degree of excellence. In the northern zone, agriculture has made little progress. Barley, oats, beans, and potatoes are, however, cultivated; but timber, pitch, tar, rosin, and alum are the productions for

which this zone is most remarkable. Of these, great quantities are exported. There are numerous mines of iron and copper, the most valuable of which are the iron mines of Dannemora, and the copper mines of Dalecarlia in Sweden.

Of the 230 millions of inhabitants which Europe contains, about two-thirds are employed in agriculture, from 15 to 20 millions in manufactures, and probably two millions in arms. The maintenance of those employed in arms requires, it is said, two-fifths of the entire revenue. The form of government, called limited monarchy, is that which prevails in several of the most important states, and in nearly all, the subject enjoys a degree of civil liberty, greater than that which exists in most other parts of the world. The Christian religion, under some one of its denominations, prevails in every part of Europe, not excepting Turkey, where, though the religion of the state is Mahometanism, nearly two-thirds of the inhabitants are Christians, principally of the Roman Catholic and Greek Churches. The number of Catholics in Europe is computed at 140 millions. This division of the earth is also distinguished as the site of the chair of St. Peter, acknowledged the centre of Christian unity, since the time of that apostle. Other regions are, perhaps, more favoured with the wealth of nature, but in none have the effects of human intelligence, enterprise, and industry, been more strikingly exemplified.

A.

## LESSON IX.

## MODESTY AND HUMILITY.

|               |               |             |
|---------------|---------------|-------------|
| Amiable       | magnify       | submission  |
| proportion    | distinguished | retribution |
| superiority   | fellowship    | resignation |
| naturally     | reminding     | lamentation |
| impropriety   | adversity     | comparison  |
| spontaneously | consolations  | conformity  |

MODESTY is one of the most amiable qualities of a superior man : it is, in fact, observed to increase in proportion to his superiority ; and this is well explained by the ideas suggested by religion. Superiority is nothing more than a great advancement in the knowledge and love of truth : the first renders a man humble, the second makes him modest. Take an example : A man fears praise and shrinks from it, and he does so, though praise is naturally agreeable to our nature, and there appears, at first sight, no impropriety in seeking occasions in which it is spontaneously offered to us. His behaviour in this respect is approved by all those who prize virtue : why so, but because his behaviour is reasonable ? The modest man feels that praise reminds him only of the bright part of his character, which is exactly that part which he is most disposed to consider and magnify, while he knows he ought not to look at one side only if he wishes to judge fairly ; he feels that praise easily induces him to ascribe to himself that which is the gift of God ; to suppose in himself some excellence

springing from his own strength, which would be a manifest error ; wherefore he avoids it, he conceals his best actions, and preserves his noblest sentiments in the secret recesses of his own heart : he knows that whatever induces him to display them is pride and a love of being observed, distinguished, and esteemed, not for what he is, but for something far superior.

Modesty, then, being humility reduced to practice, it can have no fellowship with pride ; nor can there be such a thing as a just pride. Pride can never be just, since it can never be either a support to human weakness, or a consolation in adversity. No ; these admirable fruits spring from humility alone ; it is humility that shields us against our weakness, by reminding us of its existence every moment ; it is humility that makes us watch and pray to Him who ordains and imparts virtue ; it is “ humility that makes us lift up our eyes unto the hills whence cometh our help.” And in adversity, consolations are reserved for the humble soul, that acknowledges herself worthy to suffer, and feels a sense of joy arising from submission to the divine will. Looking at her faults, adversity appears like the retribution of a God that will pardon, and not like the stroke of a blind power ; she increases in dignity and purity, because every pain suffered with resignation, cancels some of the spots that rendered her less fair ; and what more ? she grows to love adversity itself, because it renders her “ conformed to the image of the Son of God,” and, instead of abandoning herself to vain

and empty complaints, she returns thanks amid circumstances under which, if she were left to herself, she would utter nought but the lamentation of despair or the cry of revolt. But as for pride; when God shall have humbled the proud man, as one stricken and wounded, will pride be any healing balsam for him? To what can it serve him in the midst of adversities, but to fill him with hatred for them as unjust; to excite in his breast a restless and painful comparison between that which he would fain persuade himself he deserves, and that which it is his lot to endure? The secret of the repose of man, in this life, consists in the conformity of his will with that of God. And who is further removed from this blessed disposition than the afflicted proud man?

MANZONI.

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## LESSON X.

### ADDRESS TO THE CUCKOO.



HAIL, beauteous stranger of the grove!  
 Thou messenger of spring!  
 Now heaven repairs thy rural seat,  
 And woods thy welcome sing.

What time the daisy decks the green,  
 Thy certain voice we hear;  
 Hast thou a star to guide thy path,  
 Or mark the rolling year?

Delightful visitant ! with thee  
 I hail the time of flowers ;  
 And hear the sound of music sweet,  
 From birds among the bowers.

The school-boy, wandering through the wood,  
 To pull the primrose gay,  
 Starts, the new voice of spring to hear,  
 And imitates thy lay.

What time the pea puts on the bloom,  
 Thou fliest the vocal vale,  
 An annual guest in other lands,  
 Another spring to hail.

Sweet bird ! thy bower is ever green ;  
 Thy sky is ever clear ;  
 Thou hast no sorrow in thy song,  
 No winter in thy year !

O ! could I fly, I'd fly with thee ;  
 We'd make, with joyful wing,  
 Our annual visit o'er the globe,  
 Companions of the spring.

LOGAN.





## LESSON XI.

## THE EMPEROR CONSTANTINE.

Predilection	ecclesiastical	unequivocal
miraculous	judicial	metropolis
resplendent	authority	Byzantium
campaign	celibacy	Constantinople
promulgated	legacies	designated
imperial	dominions	superstition

CONSTANTINE, although nurtured in the bosom of paganism, had inherited the kindly disposition, we may perhaps call it the predilection of his father, Constantius, in favour of Christianity. These sentiments were soon converted into a decided inclination, and finally, into a firm belief in the divinity of the same religion. The change was effected, according to his own declaration, which we find in Eusebius, by the miraculous appearance in the heavens of a resplendent cross, which was accompanied by a promise of victory. This occurred in the year 311, during his campaign against Maxentius.

In the following year, Constantine, who was now lord of the western division of the Roman empire, and Licinius, who was sole ruler of the east, promulgated a decree, granting toleration to all religions. This was the first imperial decree promulgated in favour of the Christians; in 313 it was followed by the edict of Milan, which secured to the Christians in particular, the free exercise of

their religion. A series of laws, during the following year, bestowed upon them many and great advantages. Constantine freed all ecclesiastical persons from the burden of the public offices of the state, and from the payment of all personal taxes; he confirmed the judicial authority of the bishops; abolished the laws against those who lived in celibacy; permitted churches to receive presents and legacies; enforced the observance of the Sunday; maintained many churches and ecclesiastics; and erected many temples to the honour of the true God. But, in the mean time, Licinius, who beheld in Constantine a dangerous rival, and an abettor of the Christians, persecuted the faithful in his own dominions. The war, which in 323 broke out between the two emperors, was, in reality, a religious war. Licinius fell in the contest, and with him fell paganism.

The conqueror, under whose sway the whole empire of Rome now lay united, declared himself, in the most unequivocal manner, a professor of the Christian religion; and expressed his desire and his hope, that all his subjects would imitate his example. He caused his sons to be educated as Christians, and placed Christians in the most important offices of the state. To the ancient capital of the dominions of heathen Rome, he opposed a Christian metropolis at Byzantium, now called from him, Constantinople. He ceased not in his attacks upon paganism, which he even designated as a superstition of by-gone times. He commanded the heathen temples, in many places,

to be closed, or to be converted into churches; in other cities they were destroyed, and the idols of the gods broken into pieces, or removed. He employed every means within his power to induce the idolaters to embrace the new faith; and it appears, that towards the close of his reign, he published a universal prohibition, which forbade the public worship of the gods: the law, however, was never enforced.

DÖLLINGER.

## LESSON XII.

### THE HABITATION OF BEES.

Appellation	accidentally	progeny
solitary	assemblage	unacquainted
operations	convenient	equivalent
habitations	metamorphoses	incessantly
irregular	constructing	accomplished
prominences	dexterity	dimensions

THERE are several species of bees distinguished by the appellation of *solitary*, because they do not associate, to carry on any joint operations. Of this kind is the *mason-bee*, so called, because it builds a habitation composed of sand and mortar. The nests of this bee are fixed to the walls of houses, and when finished, have the appearance of irregular prominences arising from dirt or clay, accidentally thrown against a wall or stone by the feet of horses. These prominences are not so

remarkable as to attract attention ; but when the external coat is removed, their structure is discovered to be truly admirable. The interior part consists of an assemblage of different cells, each of which affords a convenient lodgment to a white worm, pretty similar to those produced by the *honey-bee*. Here they remain till they have undergone all their metamorphoses. In constructing this nest, which is a work of great labour and dexterity, the female is the sole operator. The manner in which the female mason-bees build their nests, is the most curious branch of their history.

After choosing a part of a wall, on which she is resolved to fix a habitation for her future progeny, she goes in quest of proper material. The nest to be constructed, must consist of a species of mortar, of which sand is the basis. She knows, like human builders, that every kind of sand is not equally proper for making good mortar. She goes therefore to a bed of sand, and selects, grain after grain, the kind which is best to answer her purpose. With her teeth, which are as large and as strong as those of the *honey-bee*, she examines and brings together several grains. But sand alone will not make mortar ; recourse must be had to a cement, similar to the slacked lime employed by masons. Our bee is unacquainted with lime, but she possesses an equivalent in her own body. From her mouth she throws out a viscid liquor, with which she moistens the first grain ; to this she cements a second, which she moistens in the same

manner ; and to the former two she attaches a third, and so on till she has formed a mass as large as the shot usually employed to kill hares. This mass she carries off in her teeth, to the place she had chosen for erecting her nest, and makes it the foundation of the first cell. In this manner she labours incessantly till the whole cells are completed ; a work which is generally accomplished in five or six days. All the cells are similar, and nearly of equal dimensions. Before they are covered, their figure resembles that of a thimble. She never begins to make a second till the first is finished. Each cell is about an inch high, and nearly half an inch in diameter.

SMELLIE.

### LESSON XIII.

#### RUINS OF THE COLOSSEUM.

Impressive	solemnity	combinations
imagination	magnificence	limited
probably	emotion	visible
accessible	permanence	horizon
amphitheatre	conservation	utterly
illuminated	universe	obscured

THESE ruins are highly impressive ; yet when I saw them six years ago, they had a stronger effect on my imagination : whether it was the charm of novelty, or that my mind was fresher, or that the circumstances under which I saw them were peculiar, I know not ; but, probably, all these causes

operated in affecting my mind. It was a still and beautiful evening in the month of May; the last sun-beams were dying away in the western sky, and the first moon-beams shining in the eastern; the bright orange tints lighted up the ruins, and, as it were, kindled the snows that still remained on the distant Apennines, which were visible from the highest accessible part of the amphitheatre. In this glow of colouring, the green of advanced spring softened the grey and yellow tints of the decaying stones, and as the lights gradually became fainter, the masses appeared grander and more majestic; and when the twilight had entirely disappeared, the contrast of light and shade in the beams of the full moon, and beneath a sky of the brightest sapphire, but so highly illuminated, that only Jupiter, and a few stars of the first magnitude, were visible, gave a solemnity and magnificence to the scene, which awakened the highest degree of that emotion, which is so properly termed the sublime. The beauty and permanence of the heavens, and the principle of conservation belonging to the system of the universe, the works of the eternal and divine Architect, were finally opposed to the perishing and degraded works of man in his most active and powerful state. And at this moment, so humble appeared the condition of the most exalted beings belonging to the earth; so feeble their combinations, so minute the point of space, and so limited the period of time in which they act, that I could hardly avoid comparing the generations of man, and the effects of his genius and

power, to the swarms of fire-flies, which were dancing around me, and that appeared flitting and sparkling amidst the gloom and darkness of the ruins, but which were no longer visible when they rose above the horizon—their feeble light being lost and utterly obscured in the brightness of the moon-beams in the heavens.

SIR HUMPHREY DAVY.



## LESSON XIV.

### THE INFLUENCE OF MUSIC.

Musician	flourishing	persuasions
influence	endowment	intervention
arrangement	meditation	strengthening
correspondence	enchancing	artisan
understanding	insufficient	seraphim
offspring	intoxication	re-animating

THE musician, in a more especial manner, is indebted to the sense of hearing, for the influence which he can exert over our nature. That dexterous arrangement and correspondence of sounds, which are capable, without being in any way addressed to our understanding, of exciting so many lively emotions within our minds, are entirely the offspring of this sense. If it served no other and no higher purpose than this alone, of furnishing mankind with so sweet a solace, amid the toils and trials of the world, they would surely find ample cause for gratitude in the endowment. How

many an aching heart has found relief—how many a weary mind has been enlivened—how many a rugged nature has been softened—how many a cruel purpose has been diverted and disarmed, by the mediation of this enchanting art! On the field of war, when all things around are overcast with a hue of death and ruin; and when even reason, duty, and the love of country itself, are insufficient to prevent the spirits from sinking at the sight of the terrible pomp of destruction that stalks around, the sound of the fife and drum is able to confirm the staggering soul, to arouse the drooping energies of the heart, and hurry them on to an intoxication of bravery and defiance, which all the persuasions of reason could never have produced. In the bosom of domestic life, how effectual is the moderate intervention of this science, in strengthening the bonds of social love, and in cheering the exertions of industry! The poor artisan, who is fed by the labour of his hands, forgets his toil, while he unburdens his heart in song; and the fond father and brother feel their affection sensibly increased, when the object of their care is charming the hours away with a melody of other times. In the temples of the living God, when the mind is distracted by the memory of earthly cares, or the assaults of indolence and tepidity, the choir and the organ are used to direct its attention, and to elevate its aspirations. Here, too, they are made to the Supreme Being a faint echo of that homage which he receives, in its perfection, from the seraphim



in heaven. How precious, therefore, is this art, which is capable of soothing the unhappy, of refreshing the weary, of softening the hard of heart, of re-animating a drooping courage, of strengthening a social affection, of inspiring even labour itself with a multitude of pleasing and cheerful associations!

G. GRIFFIN.

## LESSON XV.

### THE CROSS OF THE SOUTH.

THE pleasure we felt on discovering the constellation, called *the Southern Cross*, was warmly shared by such of the crew as had lived in the colonies. In the solitude of the sea, we hail a star, as a friend from whom we have been long separated. Among the Portuguese and Spaniards, peculiar motives seem to increase this feeling; a religious sentiment attaches them to a constellation, the form of which recalls the sign of the faith planted by their ancestors in the deserts of the New World. The two great stars which mark the summit and the foot of the cross, having nearly the same right ascension, it follows that the constellation is almost perpendicular, at the moment when it passes the meridian. This circumstance is known to every nation that lies beyond the tropics, or in the southern hemisphere. It has been observed at what hour of the night, in

different seasons, the Cross of the South is erect or inclined. It is a time-piece, that advances very regularly nearly four minutes a day, and no other group of stars exhibits, to the naked eye, an observation of time so easily made. How often have we heard our guides exclaim in the savannahs of Venezuela, or in the desert extending from Lima to Truxillo, "Midnight is past; the Cross begins to bend!"

DE HUMBOLDT'S TRAVELS.

IN the silence and grandeur of midnight I tread,  
Where savannahs in boundless magnificence  
spread,  
And bearing sublimely their snow-wreaths on high,  
The far Cordilleras unite with the sky.

The fern-tree waves o'er me, the fire-flies' red light  
With its quick-glancing splendour illumines the  
night,  
And I read in each tint of the skies and the earth,  
How distant my steps from the land of my birth.

But to thee, as thy lode-stars resplendently burn  
In their clear depths of blue, with devotion I turn,  
Bright Cross of the South! and beholding thee  
shine,  
Scarce regret the loved land of the olive and vine.

Thou recallest the ages when first o'er the main  
My fathers unfolded the streamer of Spain,

And planted their faith in the regions that see  
Its imperishing symbol emblazoned in thee.

How oft in their course o'er the oceans unknown,  
When all was mysterious, and awfully lone,  
Hath their spirit been cheered by thy light, when  
the deep  
Reflected its brilliance in tremulous sleep!

As the vision that rose to the Lord of the world\*,  
When first his bright banner of faith was unfurled;  
Even such to the heroes of Spain, when their  
prow  
Made the billows the path of their glory, wert thou.

And to me, as I traversed the world of the west,  
Through deserts of beauty in stillness that rest,  
By forests and rivers untamed in their pride,  
Thy beams have a language, thy course is a guide.

Shine on—my own land is a far distant spot,  
And the stars of thy sphere can enlighten it not;  
And the eyes that I love; though e'en now they  
may be  
O'er the firmament wand'ring, can gaze not on  
thee!

But thou to my thoughts art a pure-blazing shrine,  
A fount of bright hopes and of visions divine;  
And my soul, as an eagle exulting and free,  
Soars high o'er the Andes to mingle with thee.

MRS. HEMANS.

\* Constantine.

## LESSON XVI.

## ASIA.

Turkey	Thibet	Dardanelles
Arabia	Tartary	Taurus
Persia	Siberia	Caucasus
Afghanistan	Japan	Himmaleh
Hindostan	Severo	Yenisei
China	Archipelago	Brahmapoutra

THIS grand division of the globe, the second in rank and importance, even in modern times, is first in extent and population. It is bounded *north*, by the Northern Ocean; *west*, by Europe, the Sea of Azoph, the Black Sea, the Sea of Marmora, the Archipelago, the Mediterranean, the Isthmus of Suez, and the Red Sea; *south*, by the Indian Ocean; and *east*, by the Pacific Ocean. It contains the following countries: Turkey in Asia, Arabia, Persia, Afghanistan, Hindostan, Eastern Peninsula, China, Thibet, Eastern or Chinese Tartary, Western or Independent Tartary, and Siberia or Asiatic Russia; to which may be added the islands of Japan. Its length from the Dardanelles to the eastern shores of Tartary is about 6000 miles; its breadth, from the south of Malacca to Cape Severo in Siberia, is 5200 miles. It is said to contain 16 millions of square miles, with a population of 460 millions.

The greater portion of this vast continent is situated in the north temperate zone; that in the torrid zone being only one-seventh, and that in

the frigid, one-seventeenth of the entire. Central Asia rises to a considerable height above the sea, and forms a plateau, or table-land, from four to ten thousand feet in elevation, which gradually descends to a level with the lowlands, by which this elevated mass is surrounded. Upon the eastern or highest part of this plateau, are placed the lofty Himmalehs, the highest mountains in the world; nature, as it were, proportioning the superstructure to the foundation on which it was to be erected. Taurus and Caucasus mark the western limits of this plateau; the Himmaleh range and its branches form the southern boundary; while the mountain ranges of Western China, and the Alpine region of Da-uria, mark its limits on the other sides. All the great rivers of Asia have their sources in the highlands of this middle region. The Obi, Yenisei, and Lena, with their tributaries, discharge their torrents, under seas of ice, into the Frozen Ocean. The two great rivers of China, the Hoang-ho, and Kiang-ku, the respective courses of which are two thousand and two thousand nine hundred miles, rise in the mountain region of Eastern Asia, their sources not very distant from each other. The high tides of the Pacific Ocean ascend these rivers several hundred miles, and render them navigable a considerable distance from the sea. The Irrawady, Ganges, Brahmapoutra, Indus, Euphrates, and several rivers of less note, descend from the western terraces of this great plateau, and carry their waters, and those of the lowlands of Southern

Asia, which they traverse, to the Indian Ocean. Some of these rivers, as the Ganges and Brahmapoutra, like the Nile, inundate the adjacent countries to a considerable distance.

Asia, on account of its immense extent, possesses every variety of soil and climate. The character of its people varies with their climate. The Chinese are remarkable for their industry; the Hindoos for the opposite failing; while the Arabs and Tartars lead the same wandering life as in the ancient patriarchal times. The form of government is almost universally despotic. The rapid rise and disappearance of Asiatic towns has been accounted for by the slight and perishable nature of the materials which form the houses. In Arabia and on the great plateau, where wood is scarce, they are mere tents, covered with skins of beasts, or with stuff made of their hair or wool. In India, where wood is abundant, they are formed of that material, but so slightly, that they soon decay. Asia derives its name from a city called *Asia*, belonging to the tribe of the Asiones, in a district of Lydia. The name of the city was first extended by the Greeks to Asia Minor, and ultimately to the other regions of the east. Until the rise of the Roman empire, it occupied the first place in the history of mankind. It was the scene of all the leading events recorded in Sacred Writ; of the creation of mankind, the delivery of the law, the miraculous favours which God bestowed upon his chosen people, of our redemption by his only-begotten Son, and of the establishment of his

Church, which was afterwards to extend itself over all the nations of the earth. It was also the seat of the most powerful empires of antiquity, a great part being successively governed by the Assyrians, Medes, Persians, Greeks, and Romans, though the ancient conquerors knew little of India or of China. The population is generally allowed to be primitive, excepting, perhaps, a few colonies from Russia, and the European settlements in Hindostan and the south-eastern islands.

Almost the entire of this great continent is reduced to the very lowest state of moral degradation ; its people, the slaves of the grossest superstitions. Attempts have been made, and with much success, to diffuse the light of the Gospel amongst them, particularly in the south and east ; and fatigues, sufferings, and persecutions, are daily and cheerfully undergone by Catholic Missionaries, to effect this glorious object. The recent persecutions in Cochin-China have given new martyrs to the Church of God, and manifested to the world, that she still possesses within her bosom that spirit of zeal, fortitude, and self-sacrifice, for which, in all ages, her children have peculiarly been distinguished.

A.



## LESSON. XVII.

## PROPERTIES OF MATTER.

Magnificent	physical	unchangeable
elements	mechanical	transformed
attraction	chemical	gravitation
repulsion	modifies	countervailed
inertia	fundamental	figuratively
phenomena	indestructible	stubbornness

IF it excites our admiration, that a varied edifice, or even a magnificent city, can be constructed of stone from one quarry, what must our feeling be to learn how few and simple the elements are, out of which the sublime fabric of the universe, with all its orders of phenomena, has arisen, and is now sustained ! These elements are general facts and laws which human sagacity is able to detect, and then to apply to endless purposes of human advantage.

Now the four words, *atom*, *attraction*, *repulsion*, and *inertia*, point to four general truths, which explain the greater part of the phenomena of nature. Being so general, they are called physical truths, from the Greek word signifying nature ; as also, " truths of natural philosophy," with the same meaning ; and sometimes, " mechanical truths," from their close relation to ordinary machinery. These appellations distinguish them from the remaining general truths, namely, the chemical truths, which regard particular substances, and the



vital and mental truths, which have relation only to living beings. And even in the cases where a chemical or vital influence operates, it modifies, but does not destroy, the physical influence. By fixing the attention, then, on these four fundamental truths, the student obtains, as it were, so many keys to unlock, and lights to illumine the secrets and treasures of nature.

Every material mass in nature is divisible into very minute indestructible and unchangeable particles,—as, when a piece of any metal is bruised, broken, cut, dissolved, or otherwise transformed, a thousand times, but can always be exhibited again as perfect as at first. This truth is conveniently recalled by giving to the particles the name *atom*, which is a Greek term, signifying that which cannot be farther cut or divided, or an exceedingly minute resisting particle.

It is found that the atoms above referred to, whether separate or already joined into masses, as when the atoms of which any mass is composed, are, by an invisible influence, held together with a certain degree of force; or when a block of stone is similarly held down to the earth on which it lies; or when the tides on the earth rise towards the moon. These facts are conveniently recalled by connecting with them the word *attraction*, a drawing together, or *gravitation*.

Atoms, under certain circumstances, as of heat diffused among them, have their mutual attraction countervailed or resisted, and they tend to or separate;—as when ice heated melts into water; or

when water heated bursts into steam ; or when gunpowder ignited explodes. Such facts are conveniently recalled by the term *repulsion*, a thrusting asunder.

As a fly-wheel made to revolve, at first offers resistance to the force moving it, but gradually acquires speed proportioned to that force, and then resists, being again stopped, in proportion to its speed ; so all bodies or atoms in the universe have about them, in regard to motion, what may be figuratively called a *stubbornness*, tending to keep them in their existing state, whatever it may be ; in other words, they neither acquire motion, nor lose motion, nor bend their course in motion, but in exact proportion to some force applied. Many of the motions now going on in the universe with such regularity—as that turning of the earth which produces the phenomena of day and night—are motions which began thousands of years ago, and continue unvarying in this way. Such facts are conveniently recalled by the term *inertia*.

ARNOTT.

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## LESSON XVIII.

## ON THE DUTIES OF SCHOOL BOYS.

Gratitude	remembrance	understanding
docility	philosopher	antiquity
correspondence	indebted	commendation
laboured	imbibed	animated
education	probity	emulation
character	obligations	reprimand

ALMOST all the duties of scholars have been included in this one piece of advice, to love those who teach them, as they love the knowledge which they derive from them; and to look upon them as fathers, from whom they derive, not the life of the body, but that instruction, which is, in a manner, the life of the soul. Indeed this sentiment of affection and respect suffices to make them apt to learn during the time of their studies, and full of gratitude all the rest of their lives. It seems to me to include a great part of what is to be expected from them. Docility, which consists in submitting to directions, in readily receiving the instructions of their masters, and reducing them to practice, is properly the virtue of scholars, as that of masters is to teach well. The one can do nothing without the other; and as it is not sufficient for a labourer to sow the seed, unless the earth, after having opened its bosom to receive it, in a manner hatches, warms, and moistens it; so likewise the good fruit of instruction depends upon a good correspondence

between the masters and the scholars. Gratitude to those who have laboured in our education, is the character of an honest man, and the mark of a good heart. "Who is there among us," says an ancient orator, "that has been instructed with any care, who is not highly delighted with the sight, or even the bare remembrance of his teachers, and of the place where he was taught and brought up?" An ancient philosopher exhorts young men to preserve always a great respect for their masters, to whose care they are indebted for the amendment of their faults, and for having imbibed sentiments of honour and probity. Their exactness displeases sometimes at an age, when we are not in a condition to judge of the obligations we owe to them; but when years have ripened our understanding and judgment, we then discern that what made us dislike them, is expressly the very thing, which should make us esteem and love them. Another eminent writer of antiquity, after having noted the different characters of the mind in children, draws, in a few words, the image of what he judged to be a perfect scholar, and certainly it is a very amiable one. "For my part," says he, "I like a child who is encouraged by commendation, is animated by a sense of glory, and weeps when he is outdone." A noble emulation will always keep him in exercise, a reprimand will touch him to the quick, and honour will serve instead of the rod. We need not fear that such a scholar will ever give himself up to sulkiness." How great a value soever this writer puts

upon the talents of the mind, he esteems those of the heart far beyond them, and looks upon the other as of no value without them. He declares, he should never have a good opinion of a child, who placed his study in occasioning laughter. "I should rather choose," added he, "to have a boy dull and heavy, than of a bad disposition."

ROLLIN.



## LESSON XX.

### THE ANNUNCIATION.

LOVELIEST of women, and most glorified !  
 In thy still beauty sitting calm and lone,  
 A brightness round thee grew, and by thy side  
 Kindling the air, a form ethereal shone,  
 Solemn, yet breathing gladness. From her  
 throne  
 A queen had risen with more imperial eye,  
 A stately prophetess of victory  
 From her proud lyre had struck a tempest's  
 tone,  
 For such high tidings as to *those* were brought,  
 Chosen of Heaven! that hour: but thou,  
 O thou !  
 E'en as a flower with gracious rains o'erfraught,  
 Thy virgin head beneath its crown didst bow,  
 And take to thy meek breast th' all Holy Word,  
 And own thyself *the handmaid of the Lord.*

MRS. HEMANS.

## THE CHOICE OF FRIENDS.

LEAGUE not with him in friendship's tie,  
Whose selfish soul is bent on pleasure ;  
For he from joy to joy will fly,  
As changes fancy's fickle measure.  
Not his the faith, whose bond we see,  
With lapse of years remaining stronger ;  
Nor will he then be true to thee,  
When thou can'st serve his aim no longer.

Him too avoid, whose grovelling love  
In earthly end alone is centred,  
Within whose heart, a thought above  
Life's common cares, has seldom enter'd.  
Trust not to him thy bosom's weal,  
A painted love alone revealing ;  
The show, without the lasting zeal,  
The hollow voice, without the feeling.  
G. GRIFFIN.



## SECTION V.

## LESSON I.

## LAKE OF KILLARNEY.

Picturesque	celebrated	curiosities
spectator	communicates	cathedral
enchantment	comparison	mentioned
promontory	beautiful	spontaneous
magnificence	boundary	probably
extremity	continual	introduced

THE Lake of Killarney, in the province of Munster and county of Kerry, affords the most beautiful and picturesque prospects in nature. This lake is divided into three parts, called the upper, middle, and lower lake. The northern, or lower lake, is six miles in length, and from three to four in breadth. On the side of one of the mountains is O'Sullivan's Cascade, which falls into the lake, making a noise which strikes the spectator with awe. The view of this sheet of water is uncommonly fine, appearing as if descending from an arch of wood, which overhangs it above seventy feet in height from the point of view. The islands are not so numerous in this as in the upper lake; but there is one of uncommon beauty, called *Innisfallen*, nearly opposite O'Sullivan's Cascade, which contains eighteen Irish acres. In this island are the ruins of an ancient abbey, founded by St.

Finian, the patron saint of those parts, the situation of which is romantic and retired. There was formerly a chronicle kept in this abbey, called the *Annals of Innisfallen*. They contain a sketch of universal history, from the creation of the world, to the year 430; but from that period, the annalist has amply prosecuted the affairs of Ireland down to his own time, (1215). The promontory of Mucross, which divides the upper from the lower lake, is a perfect land of enchantment, and a road is carried through the centre of this promontory, which unfolds all the interior beauties of the place. Among the distant mountains, *Turk* appears an object of magnificence, and *Mangerton's* more lofty and more interesting summit soars above the whole.

The passage of the upper lake is round the extremity of Mucross, which confines it on one side, and the approaching mountains on the other. Here is a celebrated rock, called the *Eagle's Nest*, which produces wonderful echoes. A French horn sounded here, raises a concert superior to that of a hundred instruments; and the report of a single cannon is answered by a succession of peals resembling the loudest thunder, which seem to traverse the surrounding scenery, and die away among the distant mountains. The upper lake is four miles in length, and from two to three in breadth. It is almost surrounded by mountains, from which descend a number of beautiful cascades. The islands in the lake are numerous, and afford an amazing variety of picturesque scenes.

The centre lake, which communicates with the



upper, is small in comparison with the other two, and cannot boast of equal variety, but the shores are, in many places, indented with beautiful bays, surrounded by dark groves of trees. The eastern boundary is formed by the base of Mangerton, down to the steep side of which descends a cascade, visible for 150 yards. This fall of water is supplied by a circular lake near the summit of the mountain, called the *Devil's Punch-Bowl*, which, on account of its immense depth, and the continual overflow of water, is considered as one of the greatest curiosities of Killarney.

One of the best prospects which this admired lake affords, is from a rising ground, near the ruined cathedral of Aghadoe. The depth of this lake is equally surprising, places under the rocky shores being from fifteen to twenty fathoms, and some parts from seventy to eighty fathoms deep.

The island of Innisfallen, in the lower lake, already mentioned, is generally the dining place, where there is a kind of hall fitted up by Lord Kenmare. What is very surprising here, is the spontaneous production of the *arbutus*, or strawberry-tree, which is found in great plenty and perfection in many of these islands ; it was probably introduced here by the monks who inhabited this place at a very early period. This plant was not much known about London, so late as 1770. Near the Lake of Killarney, there is a rich copper mine wrought, which produces from fifty to sixty tons of ore per week.

CLARKE'S WONDERS.

R 3

## LESSON II.

## THE FINAL DESTRUCTION OF THE TEMPLE.

Successor	perpetuity	demonstration
apostatized	contemptible	impotency
malignant	co-operate	phenomenon
ingenuity	superintendence	miraculously
extirpate	re-established	manifestation
testimony	prosecution	ecclesiastical

THE emperor Julian, the immediate successor of the sons of Constantine, had apostatized from the Christian faith, openly professed himself a pagan, and endeavoured, by every means, which the most malignant ingenuity could devise, to extirpate the religion he had abandoned. All his efforts were unavailing, but the very malignity of the impious prince was soon to furnish additional testimony to the divinity of our Redeemer, and to the truth and perpetuity of his doctrine. The Jewish temple had long been in ruins; its sacrifices abolished and almost forgotten. The prophet Daniel had distinctly foretold its final desolation; and our Redeemer himself had expressly declared, that not one stone of it should remain upon another. In order to falsify these predictions, and thus to render the Christian religion contemptible, Julian assembled the chief among the Jews, encouraged them to renew their ancient sacrifices, and, as Jerusalem was the only place at which the Jewish law permitted those sacrifices to be offered, he promised to assist them in rebuilding their temple.

He then collected the ablest workmen from all parts of the empire, hired numerous labourers, and committed the superintendence of the work to Alipius, one of his most faithful officers.

The Jews repaired in triumph to Jerusalem from all parts of the world, proclaiming everywhere, that the kingdom of Israel was about to be re-established. That they might participate in the glory of the enterprise, the women of every rank assisted in digging the foundations, and carried their enthusiasm so far as to remove the rubbish in their gowns and aprons. The rich contributed their most costly ornaments, and it is even said, that, either through respect or ostentation, several of the spades and baskets used in the prosecution of the work were made of silver. The Jews, long the objects of opprobrium, now suddenly elevated by the imperial protection, failed not to insult the Christians in every possible manner. The holy bishop St. Cyril, on his return from banishment, witnessed their efforts without the least emotion. He assured the faithful, that they would soon receive a striking demonstration of the impotency of men and of the extravagance of their opposition to the decrees of heaven.

The remains of the ancient temple were easily destroyed, so that, according to the very letter of the Scriptures, not a stone was left upon a stone. The foundations of the intended building were prepared, but as soon as the first stones were laid, a frightful earthquake threw them from their places, and scattered them to a considerable distance.

The greater part of the neighbouring buildings was destroyed; amongst others, the porticos to which the Jewish workmen had retired; all of whom were either maimed and bruised, or crushed to death beneath the ruins. Whirlwinds arose, which swept away the lime, sand, and other materials, which had been collected in immense quantities. But a still more awful phenomenon presented itself: large balls of fire were thrown up from the foundations, which rolled with terrific rapidity in every direction, overwhelming the workmen and consuming them to the bones, or reducing them entirely to ashes. In a few moments the entire scene became a desert. The flames spread themselves to a building at some distance, in which the hammers, pickaxes, and other tools of the workmen were deposited, and instantly melted them down. A stream of liquid fire flowed around the place, bursting forth at intervals, and burning and scorching the wretched Jews, on whom it exclusively exercised its fury. This terrible phenomenon was repeatedly renewed during the day. At night crosses were seen imprinted on the garments of the Jews, which no effort could possibly wash out, and a bright shining cross appeared in the heavens, which extended from Calvary even to Mount Olivet. The obstinate Jews returned frequently to the work, but were each time miraculously forced to retire, so that many among them, and a still greater number of the idolaters, openly confessed the divinity of Jèsus Christ, and begged the sacrament of baptism.

This extraordinary manifestation of divine power is mentioned by all ecclesiastical historians, and even by several pagans. St. Gregory of Nazianzen, St. Ambrose, and St. John Chrysostom speak of it as a fact of recent occurrence, of which their auditors were themselves eye-witnesses. St. Chrysostom in particular adds, that the foundations dug by the Jews were yet to be seen, and served as indisputable evidence of what impiety had attempted, but could not accomplish.

BERCASTEL.



### LESSON III.

#### ON THE HABITS OF THE ROOK.

Gregarious	immemorial	evolutions
multitudes	autumnal	alternately
waterfowl	equinox	magnificent
consolation	undiminished	ornithologist
congregated	intervening	associate
dissolved	rendezvous	perpendicular

THERE is no wild bird in England so completely gregarious as the rook, or so regular in its daily movements. The ring-doves will assemble in countless multitudes; the finches will unite in vast assemblies, and waterfowl will flock in thousands to the protected lake, during the dreary months of winter; but, when the returning sun spreads joy and consolation over the face of nature,

their congregated numbers are dissolved, and the individuals retire in pairs. The rook, however, remains in society the year throughout. In flocks it builds its nest, in flocks it seeks for food, and in flocks it retires to roost. About two miles to the eastward of this place, are the woods of Nostell Priory, where from time immemorial, the rooks have retired to pass the night. I suspect, by the observations which I have been able to make on the morning and evening transit of these birds, that there is not another roosting-place for, at least, thirty miles to the westward of Nostell Priory. Every morning, from within a few days of the autumnal, to about a week before the vernal equinox, the rooks, in congregated thousands upon thousands, fly over this valley in a westerly direction, and return in undiminished numbers to the east, an hour before the night sets in. In their morning passage some stop here, others, in other favourite places, farther and farther on; now repairing to the trees for pastime, now resorting to the fields for food, till the declining sun warns those which are gone farthest to the westward, that it is time they should return. They rise in a mass, receiving additions to their numbers from every intervening place, till they reach their neighbourhood in an amazing flock. Sometimes they pass on without stopping, and are joined by those which have spent the day here. At other times they make my park their place of rendezvous, and cover the ground in vast profusion, or perch upon the surrounding trees. After tarrying here

for a certain time, every rook takes wing. They linger in the air for a while, in slow revolving circles, and then they all proceed to Nostell Priory, which is their last resting-place for the night. In their morning and evening passages, the loftiness or lowliness of their flight seems to be regulated by the state of the weather. When it blows a hard gale of wind, they descend the valley with astonishing rapidity, and just skim over the tops of the intervening hills, a few feet above the trees: but, when the sky is calm and clear, they pass through the heavens at a great height, in regular and easy flight.

Sometimes these birds perform an evolution, which is, in this part of the country, usually called *the shooting of the rooks*. Farmers tell you, that this shooting portends a coming wind. He who pays attention to the flight of birds has, no doubt, observed this downward movement. When rooks have risen to an immense height in the air, so that, in appearance, they are scarcely larger than the lark, they suddenly descend to the ground, or to the tops of trees exactly under them. To effect this, they come headlong down, on pinion a little raised, but not expanded, in a zig-zag direction, (presenting, alternately, their back and breast to you), through the resisting air, which causes a noise similar to that of a rushing wind. This is a magnificent and beautiful sight to the eye of an ornithologist. It is idle to suppose for a moment that it portends wind.

It is merely the ordinary descent of the birds

to an inviting spot beneath them, where, in general, some of their associates are already assembled; or where there is food to be procured. When we consider the prodigious height of the rooks at the time they begin to descend, we conclude that they cannot effect their arrival at a spot perpendicular under them, by any other process so short and rapid.

Rooks remain with us the year throughout. If there were a deficiency of food, this would not be the case; for, when birds can no longer support themselves in the place which they have chosen for their residence, they leave it and go in quest of nutriment elsewhere. Thus, for want of food, myriads of wild-fowl leave the frozen north, and repair to milder climates; and in this immediate district, when there is but a scanty sprinkling of seeds on the whitethorn bush, our flocks of field-fares and of red-wings bear no proportion to those in times of a plentiful supply of their favourite food. But the number of rooks never visibly diminishes; and on this account we may safely conclude that, one way or other, they always find a sufficiency of food. Now, if we bring, as a charge against them, their feeding upon the industry of man, as, for example, during the time of a hard frost, or at seed-time, or at harvest, at which periods they will commit depredations, if not narrowly watched; we ought, in justice, to put down in their favour the rest of the year, when they feed entirely upon insects.

WATERTON.



## LESSON IV.

## SILK.

Production	emerges	glutinous
caterpillar	mulberry-tree	particles
constitutes	consequence	operation
envelops	indication	material
chrysalis	wicker-work	transparent
inanimate	immediately	manufacturers

SILK is the production of a caterpillar, and constitutes the covering in which it envelops itself when it changes from the *larva* state to that of the *chrysalis*. From the latter inanimate condition it emerges as a moth, and having laid its eggs, it soon dies.

The *cocoon*, or web of the silk-worm, is an oval ball of silk, which it has spun out of a substance secreted in its own body. The shades of the silk vary from the palest straw-colour to deep yellow. In a state of nature the silk-worms form their cocoons upon the mulberry-tree itself, where they shine like golden fruits amidst the leaves; but the colder climates of Europe will not allow of their being reared in the open air. They are, in consequence, kept in warm but airy rooms, and fed with mulberry-leaves till they are fully grown. They change their skin several times while they are in the caterpillar-state; at length they become so full of the silky matter, that it gives them a yellowish tinge: they then cease to eat. At this indication of their approaching change, twigs are

placed over them upon little stages of wicker-work, on which they immediately begin to form their webs. When these are finished, the downy matter on the outside, called *floss*, is taken off, and the cocoons are thrown into warm water, to dissolve the glutinous particles which had caused the silk to adhere: the ends of the threads being found, several are joined together and wound upon a reel; this is called *raw-silk*. It next undergoes an operation to cleanse it, and render it more supple, after which it is twisted into threads of different degrees of fineness, as required by the weaver; in this state it is called *thrown-silk*. The excellence of silk, as a material for dress, consists in its strength, lightness, lustre, and its being capable of taking the finest dyes. Silk may be made into substances varying in thickness, from the finest transparent gauze to the richest velvets and brocades. Our manufacturers are supplied with silk chiefly from China, Persia, and Italy. France is the most northern climate in which silk is produced in any quantity.

MAYO,



## LESSON V.

### NATURE'S MIRACLES.

WHAT prodigies can Power Divine perform  
More grand, than it produces year by year,  
And all in sight of inattentive man?  
Familiar with th' effect, we slight the cause,

And, in the constancy of nature's course,  
 And regular return of genial months,  
 And renovation of a faded world,  
 See nought to wonder at. Should God again,  
 As once in Gabaon, interrupt the race  
 Of the undeviating and punctual sun,  
 How would the world admire ! But speaks it less  
 An agency Divine, to make him know  
 The moment when to sink, and when to rise,  
 Age after age, than to arrest his course ?  
 All we behold is miracle : but, seen  
 So duly, all is miracle in vain.  
 Where now the vital energy that moved,  
 While summer was, the pure and subtile lymph,  
 Through th' imperceptible meandering veins  
 Of leaf and flower ? It sleeps : and th' icy touch  
 Of unprolific winter has impressed  
 A cold stagnation on the intestine tide.  
 But, let the months go round, a few short months,  
 And all shall be restored. These naked shoots,  
 Barren as lances, among which the wind  
 Makes wintry music, sighing as it goes,  
 Shall put their graceful foliage on again,  
 And more aspiring, and with ampler spread,  
 Shall boast new charms, and more than they have  
 lost.  
 From death to plenty, and from death to life,  
 Is nature's progress, when she lectures man  
 In heavenly truth ; evincing, as she makes  
 The grand transition, that their lives and works  
 A soul in all things, and that soul is God.  
 The beauties of the wilderness are his,

That make so gay the solitary place,  
 Where no eye sees them. And the fairer forms,  
 That cultivation glories in, are his.  
 He sets the bright procession on its way,  
 And marshals all the order of the year ;  
 He marks the bounds, which winter may not pass,  
 And blunts his pointed fury : in its case,  
 Russet and rude, folds up the tender germ  
 Uninjured, with inimitable art ;  
 And, ere one flow'ry season fades and dies,  
 Designs the blooming wonders of the next.  
 The Lord of all, himself through all diffused,  
 Sustains, and is the life of all that lives.  
 Nature is but a name for an effect,  
 Whose cause is God. One spirit—His,  
 Who wore the platted thorns with bleeding brows,  
 Rules universal nature. Not a flower  
 But shows some touch, in freckle, streak, or stain,  
 Of his unrivalled pencil. He inspires  
 Their balmy odours, and imparts their hues,  
 And bathes their eyes with nectar, and includes,  
 In grains as countless as the sea-side sands,  
 The forms with which he sprinkles all the earth.  
 Happy who walks with him ! whom what he finds  
 Of flavour or of scent in fruit or flower,  
 Or what he views of beautiful or grand  
 In nature, from the broad majestic oak  
 To the green blade that twinkles in the sun,  
 Prompts with remembrance of a present God.

COWPER.

## LESSON VI.

## IRISH MUSIC.

Exquisite	ascertained	psalmody
effusions	characterized	monastery.
uncultivated	instrument	antiquarians
combinations	philosophers	missionaries
original	inconsiderable	hypothesis
inspiration	qualified	introduction

How little music, though so powerful in its influence on the feelings, either springs from, or is dependent upon, intellect, appears from the fact, that some of the most exquisite effusions of this art have had their origin among the simplest and most uncultivated people ; nor can all that taste and science bring afterwards to the task do more, in general, than diversify, by new combinations, those first wild strains of gaiety or passion into which nature had infused her original inspiration. In Greece, the sweetness of the ancient music had already been lost, when all the other arts were but on their way to perfection ; and from the account given by Giraldus Cambrensis of the Irish harpers of the twelfth century, it may be inferred that the melodies of the country, at the earlier period of which we are speaking, was in some degree like the first music of the infant age of Greece, and partook of the freshness of that morning of mind and hope, which was then awakening around them. With respect to the structure of the ancient Irish harp, there does not appear to have

been anything accurately ascertained ; but, from that retentiveness of all belonging to the past which characterized this people, it appears most probable that their favourite instrument was kept sacredly unaltered ; and remained the same, perhaps, in later times, when it charmed the ears of English poets and philosophers, as when it had been modulated by the bard, Cronan, in the sixth century, upon the banks of the lake Kee. It would appear that the church music, likewise, of the Irish, enjoyed no inconsiderable repute in the seventh century, as we find Gertrude, the daughter of the potent *Maire du palais*, Pepin, sending to Ireland for persons qualified to instruct the nuns of the abbey of Nivelles in psalmody ; and the great monastery of Bangor, or Benchoir, near Carrickfergus, is supposed, by Ware, to have derived its name from the white choir which belonged to it. A certain sect of antiquarians, whose favourite object it is to prove that the Irish church was in no respect connected with Rome, have imagined some mode by which, through the medium of Asiatic missionaries, her chant, or psalmody, might have been derived to her directly from the Greeks. But their whole hypothesis is shown to be a train of mere gratuitous assumption ; and it is little doubted, that, before the introduction of the latin or Gregorian chants by St. Malachy, which took place in the twelfth century, the style of music followed by the Irish, in their church-service, was that which had been introduced by St. Patrick and his companions from Gaul.

MOORE.

## LESSON VII.

## AFRICA.

Barbary	Morocco	Zanguebar
Barca	Senegambia	Abyssinia
Tripoli	Guinea	Nigritia
Tunis	Caffraria	Timbuctoo
Algiers	Mocaranga	Bambarra
Fez	Mozambique	Bournou

AFRICA, considered in relation to her place on the map of the world, forms an extensive continent, situated nearly in the centre of the earth. It is bounded, *north*, by the Mediterranean Sea ; *west*, by the Atlantic Ocean ; *south*, by the Southern Ocean ; and *east*, by the Indian Ocean, the Red Sea, and the Isthmus of Suez. Its length from the Mediterranean Sea to the Cape of Good Hope, is nearly 5,000 miles ; and its greatest breadth, from Cape Verd to Cape Guardafui, about 4,700. It contains eleven millions of square miles, and a population of seventy millions. Its principal divisions are Barbary, comprehending Barca, Tripoli, Tunis, Algiers, Fez, and Morocco ; Sahara, or the Great Desert, Senegambia, Upper Guinea, and Lower Guinea ; Cape Colony, Caffraria, and the country of the Hottentots ; Mocaranga, Mozambique, Zanguebar, Ajan, Abyssinia, Nubia, and Egypt ; Negroland, or Nigritia, or (as the Arabs call it) Soudan, comprehending Timbuctoo, Bambarra, Houssa, Bournou, and Darfur. The interior and southern part of Africa were totally unknown

to the great nations of antiquity. There is no reason to suppose, that they thought of extending their conquests to regions, which, on account of the intense heat of the sun, they deemed uninhabitable. To the Portuguese, who, in the close of the fifteenth century, discovered and sailed round the Cape of Good Hope, are we indebted for our first knowledge of the shape and extent of this continent. They remained strangers, however, to the interior of the country, and notwithstanding the enterprise of modern travellers, we are yet comparatively unacquainted with these vast regions; the excessive heat of the climate, the burning sands of the deserts, and the total absence of interior communication by water, presenting insuperable obstacles to our inquiries. One peculiarity of Africa is, that it is situated almost entirely within the torrid zone, and thus placed under the immediate dominion of the sun, the consequence of which is, that at least one-half of this vast continent is converted into hot and sandy deserts.

The Sahara, or Great Desert, with the exception of the long and narrow valley of the Nile, extends across the entire continent, presenting a dry and arid waste, in which, for several days, the traveller meets not a single drop of water, nor the slightest trace of life or vegetation. The sands are occasionally raised in large masses, which roll along like the waves of the ocean, and beneath which, it was formerly thought, large caravans, and even tribes, had been sometimes buried. Small spots of great beauty and fertility, called *oases*, are



interspersed through this vast desert, which serve as agreeable resting places for the traveller. They are densely peopled, carefully cultivated, and governed by petty princes. The countries bordering on the Mediterranean Sea were distinguished in ancient history. Egypt had attained a high degree of civilization at a very remote period; and Carthage, the first commercial nation of antiquity, disputed with Rome the empire of the world. These countries are remarkable for their fruitfulness, and, under proper culture, may be made to vie with the most favoured regions of the earth. The countries along the eastern and western coasts are also fruitful, producing the most delicious fruits, and plants of extraordinary size.

The Nile is the only river in Africa, of any considerable magnitude, which falls into the Mediterranean Sea. The rivers which flow into the Atlantic are numerous, but inconsiderable when compared with the great rivers of other continents. The principal are the Niger, Senegal, Gambia, Rio Grande, Congo, Orange, and Zambezi. The termination of the Niger was long unknown; it is now generally believed, that after a course nearly as long as that of the Nile, it flows through different mouths into the Gulf of Benin. Numberless African rivers never reach the ocean, but terminate in lakes, or are lost in the sand. The mountains are more remarkable for their breadth than height: they form, as it were, one great *plateau*, presenting towards each coast a succession of terraces, on which, during the rainy season, im-

mense sheets of water, or temporary lakes, are formed. These overflow their boundaries, and pour down large volumes of water, which cause the regular annual overflowing of the Nile, Niger, Senegal, and many minor rivers.

Africa, considered either in a political or moral point of view, occupies the lowest place among the divisions of the earth. It contains three distinct varieties of inhabitants: in the north, the Moors, descended from the Mahometan Arabs, resembling Europeans, except in their complexion, which is dark; in the middle, the Negroes, distinguished by their black skin, thick lips, and woolly hair; and in the south, and south-east, the Caffres, varying in complexion, from a yellowish brown to a shining black, and having the hair and features less strongly marked with the Negro character.

A.



## LESSON VIII.

### THE SEVEN CHURCHES.

Wicklow	recollection	controversy
loneliness	dissipation	philosophy
religious	regularity	tenements
sanctuaries	mysterious	superiority
thoughtlessness	persuasive	fundamental
agitating	ingenious	artificial

A GENTLE morning in spring beheld the writer descending the sequestered road which leads to

the valley of the Seven Churches. This exquisite scene of loneliness and gloom was cheered at the moment by a partial gleam of sunshine, which shone on the deserted churches, and flung the shadow of the round tower, a "gnomon raised by time to count his centuries," across the uneven plain on which it stands. I paused to look upon the lake which lay beyond the ruins; a cold and motionless expanse of water, prisoned in by mountains of rugged granite, with scanty traces of foliage to qualify the rudeness of the clifted heights. Yet there was more of a religious sadness than of sternness or terror in the character of the scene. It was a fitting solitude for the abode of those who fled to its quiet sanctuaries in ages long gone by, to repair the passionate excesses of their youth, and meditate in sorrow, rather than in anger, on the thoughtlessness of men.

Here it is, returning from the turmoil of London, and agitating pursuits, that the wanderer feels all the folly and idleness of the life which he has led; that his heart sickens at the recollection of the dissipation of cities; that he opens his soul to nature as to a long forsaken mother, and thinks, with an aching bosom, of the purity, the simplicity, the religious regularity of his childhood. Here it is, that we seem once more, in the keenness of awakened memory, to lose those friends that have been snatched away from us by death or distance; that the still reproaches of that mysterious principle in our nature, which points to the eternal object of our existence, steal upward through the

tumult of our passions and our interests, and speak to our hearts like the voice of a long-forgotten friend. The rocks and woods, the lakes and water-falls, the ruins and the sober day-light, and the whisper of the persuasive wind, in scenes like this, convince the heart more readily than volumes of ingenious controversy, read over with aching head and weary eyes in the midnight chamber. Here we feel the truth that is too bright even for the eagle-eye of reason to contemplate. Ambition seems a dream, philosophy a guess, our spirit seems to mount above its tenement, and to behold the passions, the faculties, the sciences, and the occupations of man, at that leisurely elevation, where alone it can become acquainted with their relative value. Here we discover all the superiority of virtue over knowledge, and remember, with all that zest which feeling gives, even to the oldest truths, those fundamental principles of virtue, which, in our days of feverish inquiry, we were accustomed to despise for their want of novelty. As the thrilling music of the Christian churches first drew those tears from the eyes of St. Augustine, which he afterwards shed from a purer and loftier impulse; so here we are won back to the love of innocence by the poetry of nature. She reproaches us with having so long preferred, to her infinite varieties of form and colour, of sound and fragrance, the coarseness of scenic imitations, and all the low artificial mockeries of her excellence, which the palaces of art present to us. She seems to open her arms, and invite us to "return!"

to blush for the meanness of our taste ; to forsake the theatre, the picture-gallery, the library ; and to study character in her towns and villages, beauty in her plains and valleys, sublimity in her mountains, and wisdom in the economy of her mighty system.

G. GRIFFIN.



## LESSON IX.

### CEREMONIES OF HOLY WEEK.

Cardinal	extinguished	confessionals
ceremonies	stupendous	pageantry
pontifical	picturesque	adorations
procession	representation	tranquillity
colonnade	imagination	animation
edification	successively	simplicity

OF all the Roman ceremonies, the pontifical service at St. Peter's is, without doubt, the most majestic ; and if we add to it the procession on Corpus Christi, in which the Pope bears the Holy Sacrament in solemn pomp along the colonnade, then hung according to the ancient fashion with tapestry, and graced with garlands, we shall have mentioned the two most splendid exhibitions, perhaps, to be seen in the universe. But, besides these, there are others, particularly during the last week of Lent, which cannot fail to excite attention and interest. The procession with palms, and the affecting chant of the Passion on Sunday, the evening

service, called *Tenebræ*, in the Sixtine chapel, on Wednesday, Thursday, and Friday; the morning service on the two latter days, particularly the Mandatum, so called from the first word of the anthem sung while the Pope washes the feet of the thirteen pilgrims, &c., are all rites which it is difficult to behold without edification and emotion.

I must not pass over the well-known exhibition that takes place in St. Peter's, on the night of Good-Friday, when the hundred lamps that burn over the tomb of the apostle are extinguished, and a stupendous cross of light appears suspended from the dome, between the altar and the nave, shedding over the whole edifice a soft lustre delightful to the eye, and highly favourable to picturesque representation. This exhibition is supposed to have originated in the sublime imagination of Michael Angelo, and he who beholds it, will acknowledge that it is not unworthy of the inventor. The magnitude of the cross, hanging as if self-supported, and like a vast meteor streaming in the air; the blaze that it pours forth, the mixture of light and shade cast on the pillars, arches, statues, and altars; the crowd of spectators placed in all the different attitudes of curiosity, wonder, and devotion; the processions, with their banners and crosses gliding successively in silence along the nave, and kneeling around the altar; the penitents of all nations and dresses collected in groups near the confessionals of their respective languages; a cardinal occasionally advancing through the crowd, and, as he kneels, humbly bending his head to the

pavement; in fine, the pontiff himself, without pomp or pageantry, prostrate before the altar, offering up his adorations in silence, form a scene singularly striking, by a happy mixture of tranquillity and animation, darkness and light, simplicity and majesty.

EUSTACE.

## LESSON X.

### ON MAMMALIA.

Faculties	aliment	herbivorous
respiration	comparative	unguiculated
permanence	intellectual	susceptible
elongated	envelops	characteristic
extensible	sensibility	anterior
mastication	horizontal	prehension

THE mammalia are placed at the head of the animal kingdom, not only because it is the class to which we ourselves belong, but also because all the species included in it enjoy the most numerous faculties, the most delicate sensations, and the most varied powers of motion.

As the quantity of respiration in the mammalia is moderate, so, generally speaking, these animals are formed for walking on the earth, but, at the same time, with great force and permanence of exertion. To this end all the articulations of their frame have strictly defined conformations, which determine all their motions with rigorous precision.

Some, however, can raise themselves in the air by means of limbs considerably elongated, and connected by extensible membranes. Others, again, have their limbs so much shortened that they can move with facility in the water only ; but these circumstances by no means deprive them of the essential characters of the class to which they belong.

The most essential differences of the mammalia among themselves are, first, in the organs of touch, on which the dexterity of the animal mainly depends ; and secondly, in those of mastication, which determine the nature of the aliment proper to every species. On these essential characters is founded the division of the mammalia into orders. Everything relating to the digestive functions is closely connected with these characters. The degree of perfection of the organs of touch may be estimated according to the number and moveableness of the fingers, and according to the greater or less proportion of depth in which their extremity is enclosed in the claw or hoof. A hoof which completely envelops that part of the extremity which would otherwise touch the ground, blunts the power of tact, and renders such extremity incapable of seizing anything. The opposite extreme to this is, when a nail forms a single lamina on one side of the end of the finger or toe only, leaving to the other all its sensibility. The nature of the diet may be judged of by the cheek-teeth, to the form of which the articulation of the jaws invariably corresponds.



For cutting flesh, the cheek-teeth are trenchant like a saw, and the jaws are fitted together so as to move in the manner of a pair of scissors, and are incapable of any other motion than that of simply opening and closing again in a vertical direction. The cheek-teeth adapted for the mastication of grains or roots, have a flattish round upper surface, or rather the shape of a flat coronet, and the jaws possess the capacity of horizontal motion. That the surface of such cheek-teeth should keep that sort of inequality peculiar to a millstone, their substance is composed of unequal hardness, some of which parts wear sooner than others. The hoofed animals are all of necessity herbivorous, and possess teeth of this description, because the conformation of their feet will not permit them to seize a living prey. Animals with unguiculated fingers or toes are susceptible of great variations in their modes of subsistence. Independently of the form of the cheek-teeth, these animals differ materially among themselves in the power of touch, and the facility with which the fingers or toes can be put in motion. There is one characteristic which has a prodigious influence on the dexterity of the animals possessed of it, and multiplies greatly, or varies, its modes of action. It is the faculty of opposing a thumb to the other fingers, and of being thus enabled to seize with facility the smallest objects. This it is which constitutes what is properly called a hand, which is found in its highest degree of perfection in the human species, among whom the

anterior extremities are altogether at liberty, and are thus capable of being more effectually employed in the act of prehension. These different combinations, which strictly determine the nature of the various animals of this class, have given rise to their divisions into orders.

CUVIER.

## LESSON XI.

### NIGHT OF MARVELS.

IN such a marvellous night, so fair  
 And full of wonder strange and new,  
 Ye shepherds of the vale declare  
 Who saw the greatest wonder? Who?

FIRST. I saw the trembling fire look wan.

SECOND. I saw the sun shed tears of blood.

THIRD. I saw a God become a man.

FOURTH. I saw a man become a God.

O wond'rous marvels! at the thought,  
 The bosom's awe and reverence move;  
 But who such prodigies has wrought?  
 What gave such wonders birth? 'Twas love!

What call'd from heaven that flame divine,  
 Which streams in glory from above;  
 And bid it o'er earth's bosom shine,  
 And bless us with its brightness? Love!

Who bid the glorious sun arrest  
 His course, and o'er heaven's concave move  
 In tears, the saddest, loneliest,  
 Of the celestial orbs ? 'Twas love !

Who raised the human race so high,  
 Ev'n to the stormy seats above,  
 That, for our mortal progeny,  
 A man became a God ? 'Twas love !

Who humbled from the seats of light  
 Their Lord, all human woes to prove ;  
 Led the great source of day—to night ;  
 And made of God a man ? 'Twas love !

Yes ! love has wrought, and love alone,  
 The victories all,—beneath,—above :  
 And earth and heaven shall shout, as one,  
 The all-triumphant song of love.

The song through all heaven's arches ran,  
 And told the wond'rous tales aloud,  
 The trembling fire that looked so wan,  
 The weeping sun behind the cloud.  
 A God—a God—become a man !  
 A mortal man become a God !

FROM THE SPANISH.

## LESSON XII.

## THE VARIOUS USES OF TREES AND PLANTS.

Mediterranean	contributing	husbandry
stupendous	considerable	constructed
specimens	sustenance	employed
different	fabricated	description
subservient	medicinal	extracted
accommodating	implements	instrument

TREES, those stupendous specimens of creative art, spread not their wide-extended roots nor lift their lofty heads in vain. Beneath their cooling shades our flocks and herds find a comfortable asylum from the scorching rays of the summer sun. The wild stragglers of the forest have a place of refuge among their woods and thickets; whilst the feathery songsters of the grove build their little dwellings in security, and sing among their branches: "as for the stork, the fir-trees are her house." But in what a variety of respects, besides affording the inhabitants of warm climates an agreeable shelter from the mid-day heat, do those, and the different members of the shrubby race, yield their services, or are made subservient to the use of man! The *bread-fruit-tree* of the Pacific Ocean, the *date-palms*, which wave along the coasts of the Mediterranean; the *calabash* of the West Indies, and *cocoa-nut-tree* of the East Indies, the *cabbage-tree* of East Florida, and the *magney* or *mati-tree* of New Spain, and the accommodating

*pawpaw*, which grows in tropical climates, both of the western and eastern world, are each rendered remarkable for the number of other useful properties they possess, besides contributing their services, in the way of most suitable food, to the inhabitants of those climes, in which they severally grow. During a considerable portion of the year, the bread-fruit-tree affords the chief sustenance of the Society-Islanders, it being in season eight months of the year. The natives of these islands collect it without the smallest trouble; they have only to climb the trees to gather its fruit. A kind of cloth is fabricated from the bark; the leaves are converted into towels and wrappers; the wood is made into boats and houses, and a kind of cement is prepared by boiling the juice in cocoa-nut oil. Nearly every part of the date-tree may be converted to some useful purpose. A considerable part of the inhabitants of Egypt, of Arabia, and Persia, subsist almost entirely on its fruit, and it is also esteemed for its medicinal virtues. From the leaves they make couches, baskets, mats, bags, and brushes; from the branches, cages and fences; from the fibres of the boughs, thread, ropes, and rigging; from the sap, a spirituous liquor; from the wood, which also furnishes fuel, the beams and rafters of houses, as well as some implements of husbandry, are constructed. The stones are ground to make oil, and the refuse is given to the cattle. The shell of the fruit of the calabash is employed in the manufacture of water-vessels, goblets, and cups of almost every description. So hard and

close-grained is the calabash, that, when it contains any kind of fluid, it may even, it is said, be put on the fire without injury. A medicinal juice is extracted from this useful plant ; and of it, the Indians construct some of their musical instruments.

POPULAR PHILOSOPHY.



### LESSON XIII.

#### USES OF TREES AND PLANTS (CONTINUED).

Surrounding	manufactured	supplying
constructed	copiously	nutritious
vegetable	inhabitants	beverage
habitations	contributing	appendages
completed	diffused	fustians
footstalks	quality	corduroys

THE cocoa-nut-tree supplies the inhabitants of the countries in which it grows, with bread, milk, and oil ; it affords them a strong spirit, vinegar, and barm ; timber to build their huts, and thatch to cover them. The shell is a useful article among their household vessels, and the coarse fibrous husk surrounding it, as well as the bark itself, is made into cloth and cordage. Of the wood of the cocoa-nut-tree, sewed together with a yarn spun from the bark, a vessel is constructed ; of the same wood, the mast is formed ; of the bark and fibrous covering of the shell, the sails are woven ; so that from the different parts of this valuable vegetable, the whole vessel, as well as the habita-

tions of the natives of the cocoa-nut islands, are completed. There is a fibrous substance in the leaves of the *cabbage-tree*, which is sometimes spun like hemp into different kinds of cordage. The sockets and grooves, formed by the broad part of the footstalks of the leaves, are used by the negroes as cradles for their children. The trunks, when cleared of the pith, serve as water-pipes and gutters, and of the pith a kind of sago is manufactured. The *magney* or *mati-tree* affords to the natives of New Spain, where it grows copiously, water, wine, oil, vinegar, honey, syrup, thread, needles, &c. In short, there are no less than nineteen services, which this tree, though small, yields to the inhabitants. The leaves serve for covering their houses; out of its roots strong and thick ropes are made; and a fine yarn may be spun out of the fibres of the leaves; which, being converted into cloth, serves for the purpose of clothing. The bark of the *pawpaw-tree* is manufactured by the Indians into cordage. The leaves are used as soap, and the stem is converted into water-pipes. It is said that a small quantity of the juice, when rubbed upon butcher's meat, renders it tender, without hurting its quality. The *plantain* and the *banana*, the *sago-palm* and the *sugar-cane* of the tropical regions, as well as the *fig-tree* of the east, and the *sugar-maple* of North America, and the *cow-tree* mentioned by Humboldt, and the *butter-tree* of Mungo Park, and the *coffee* and the *tea-tree*, and an endless variety of others, contribute to our wants in the form of food.

We have already noticed the *pitcher-plant*, besides which, there are several others, which yield a supply of refreshing water. However, we must not let these remarkable instances carry away our thoughts from the no less useful, though much more common, blessings of Providence, in these respects. But it is not only in the form of meat and drink, that these vegetable appendages on the surface of the earth administer their services ; for it is well known, that we are indebted to the *cotton-plants* of America and the Indies, for our calicoes and muslins, our fustians and corduroys, and other articles of clothing.

POPULAR PHILOSOPHY.



## LESSON XIV.

### THE ÆOLIAN HARP.

Generally	conceived	supernatural
unison	beginning	imagination
fluctuating	approaching	invisible
productions	predominates	intelligible
combination	alternately	additionally
succession	understood	illustration

THE Æolian harp is a long box or case of light wood, with harp or violin strings extended on its face. These are generally tuned in perfect unison with each other, or to the same pitch, as it is expressed, except one serving as bass, which is



thicker than the others, and vibrates only half as fast ; but when the harp is suspended among trees, or in any other situation where the fluctuating breeze may reach it, each string, according to the manner in which it receives the blast, sounds either entire, or breaks into some of the simple divisions above described ; the result of which is, the production of the most pleasing combination and succession of sounds that ear has ever listened to, or fancy, perhaps, conceived. After a pause, this fairy harp may be heard beginning with a low and solemn note, like the bass of distant music in the sky : the sound then swells as if approaching, and other tones break forth, mingling with the first and with each other : in the combined and varying strain, sometimes one clear note predominates, and sometimes another, as if single musicians alternately led the band ; and the concert often seems to approach and again to recede, until with the unequal breeze it dies away, and all is hushed again.—It is no wonder that the ancients, who understood not the nature of air, nor consequently even of simple sound, should have deemed the music of the *Æolian* harp supernatural, and, in their warm imaginations, should have supposed that it was the strain of invisible beings from above, come down in the stillness of evening or night, to commune with men in a heavenly language of soul, intelligible to both. But even now, that we understand it well, there are few persons so insensible to what is delicate and beautiful in nature, as to listen to this wild music without

emotion ; while the informed ear finds it additionally delightful, as affording an admirable illustration of those laws of sound which human ingenuity at last has traced.

ARNOTT.

## LESSON XV.

### AMERICA.

Columbia	America	Alleghanies
Mexico	La Plata	Cotopaxi
Guatimala	Chili	Chimborazo
Guiana	Patagonia	Americus
Brazil	Mississippi	Nova Scotia
Peru	Missouri	Cayambre

THIS great division of land is called the *New World*, because discovered at a comparatively recent period. It was unknown to the Europeans until 1492, when it was discovered by Christopher Columbus, a Genoese, in the service of Spain, in attempting to explore a western passage to the East Indies. In the following year, Amerigo Vespucci sailed thither, and, from the interesting account which he gave of the country, the whole continent has obtained his name. It is naturally divided into two great portions, called by geographers, *North* and *South* America. Its mountains, rivers, forests, and lakes, are on scales of the first magnitude ; and, as a whole, it is the longest mass of land on the globe, extending from Cape Horn

to the Icy Ocean, a distance of more than 9,000 miles.

North America extends in length, from ten degrees north latitude, towards the polar regions, 4,500 miles ; its breadth from Nova Scotia to the mouth of the river Columbia, is nearly 3,000 miles. And its superficial area, including the West India islands, may be estimated at about nine millions of square miles, or more than double the size of Europe. Its principal divisions are Greenland, British America, Russian Territory, United States, Mexico, Guatemala, and the West India islands. South America reaches from the Caribbean Sea to Cape Horn ; and, though nearly 200 miles longer than North America, and greater in breadth at the parallel of Cape Blanco, yet its superficial area, on account of its shape, is considerably less than eight millions of square miles. It comprises Columbia, Guiana, Brazil, Peru, Paraguay, La Plata, Chili, and Patagonia.

The stupendous mountain-chain which traverses this continent from north to south, is composed of several great groups and series of chains enclosing vast plains. The great rivers of both divisions have their sources in the mountains, and the intermediate plains form the basins of these immense currents of fresh water. The valleys of the Mississippi and Missouri are bounded on the west by the Rocky Mountains, and on the east by the Alleghanies. The Rio-de-La-Plata flows in a great central valley, running from north to south, and may be compared with the valley of

the Mississippi; while the Amazon, the great drain of the low lands that stretch from the Andes to the Atlantic, may be compared with the St. Laurence of North America. This beautiful river, the outlet of the Canadian Seas, 2,000 miles long, and 90 miles broad at its mouth, is navigable for the largest vessels, 400 miles from the ocean. The Mississippi, double the length of the St. Laurence, drains a surface of a million of square miles; and yet, the vast quantity of water which these rivers pour into the Atlantic, is inconsiderable when compared with the immense volumes discharged into it by the Amazon and La Plata.

The Andes assume their greatest elevation in the vicinity of Quito, and what is commonly called the *Valley of Quito*, is, in reality, a vast plateau or table-land, as high as the loftiest summits of the Pyrenees, bounded by stupendous mountains, whose peaks are from 18,000 to 20,000 feet above the level of the sea. Here the most considerable volcanoes of the Andes are situated; Cotopaxi is the highest and most remarkable, and its explosions are the most dreadful. Its form is the most regular and beautiful of all the summits of the Andes, being that of the most perfect cone. Its appearance at sunset is one of the most splendid sights in nature; its snow-clad sides reflecting the parting rays of the sun, shine with the most dazzling lustre against the azure vault of heaven. Cayambre ranks next to the celebrated Chimborazo in elevation; its form is that of a truncated cone; it is crossed by the Equator, and stands,

says Humboldt, "like one of the colossal and eternal mountains placed by the hand of nature to mark the grand divisions of the globe." From the burning plains to the snow-clad summits of America, all the climates and natural productions of our hemisphere are exhibited in miniature, and the zones of the mountains, as they increase in elevation, produce everything as varied and as peculiar to themselves, as the different zones or climates of the earth.

The lakes of America, like its mountains and rivers, are on the grandest scale. Lake Superior exceeds in extent every other body of fresh water at present known in the world. Its length is about 400 miles, and its breadth, 160. It receives the waters of about forty rivers, some of which are of considerable magnitude. The water of this lake is remarkable for its great transparency, so that fish may be seen at a vast depth.

The aboriginal inhabitants of America are distinguished from their Asiatic progenitors by the bronze hue of the skin, which, with a few exceptions, is common to almost all the nations of this continent. How the first emigrants passed from the old to the new world is a matter of conjecture : the most probable opinion seems to be, that they crossed Behring's Straits, and gradually peopled this continent. Christianity prevails almost universally throughout America. Nearly three-fourths of those who profess it are Roman Catholics. The entire population of North and South America is estimated at 40 millions.

A.

## LESSON XVI.

## STEAM NAVIGATION.

Navigation	advantageous	occupied
application	contemporary	arrangements
experiment	dimensions	mechanical
succeeding	capacity	apparatus
imitated	cylinders	substantial
rapidity	consumption	decorations

THE first idea of steam navigation was set forth in a patent, obtained in 1736, by Jonathan Hulls, for a machine for carrying vessels against wind and tide, or in a calm. In 1778, Thomas Paine proposed, in America, this application of steam. In 1781, the Marquis de Jouffroy constructed a steamer on the Soane; and in 1785, two Americans wrote and published a book upon it. In 1789, Symington made a voyage in one on the Forth of Clyde Canal; and in 1802, the experiment was repeated with success. Soon after, Mr. Fulton went to America, and in 1807, started a steam-boat on the Hudson's River, which succeeding, was imitated by hundreds. In June, 1819, the *Savannah*, of 350 tons, came from New York to Liverpool by steam. Our own rivers at the present day give sufficient proofs of the rapidity with which we have multiplied this advantageous method of increasing commerce and profits.

The contemporary, if we may be allowed thus to express it, with the Great Western, is the equally

splendid vessel, *The British Queen*. She was built by Messrs. Curling and Young, of Limehouse, for the British and American Steam Navigation Company, and was launched on the birth-day of the Queen, 24th of May, 1838; hence her name. This vessel runs between London and New York, and the following is an accurate description of her dimensions, capacity, and power:—Extreme length from figure-head to taffarel, 275 feet; length of upper deck, 245 feet; length of keel, 223 feet; breadth within paddle-boxes, 40 feet 6 inches; breadth, including paddle-boxes, 64 feet; depth, 27 feet; tonnage, 1,862 tons; power of engines, 500 horses; diameter of cylinders,  $71\frac{1}{2}$  inches; length of stroke, 7 feet; diameter of paddle-wheels, 30 feet; estimated weight of engines, boilers, and water, 500 tons; ditto of coals for 20 days' consumption, 600 tons; ditto of cargo, 500 tons; draught of water with the above weight and stores, 16 feet.

The *British Queen* is said to be the longest ship in the world, the length exceeding, by about thirty-five feet, that of any ship in the British navy. Her beauty is equal to that of the *Great Western*; some say far superior; and she has occupied two years in building. The *Great Western* has four, instead of three masts, and she also possesses the advantage, if such it be, of a poop-deck. The internal arrangements of the *British Queen*, as to berths and saloon, are of the most costly and chaste description; while her mechanical powers, as to engine and other apparatus, are of the most sub-

stantial and perfect workmanship. Messrs Napier and Co., of Glasgow, are the engineers. All her decorations are of English manufacture.

The *Great Western* was built at Bristol, without any consideration as to cost and labour. As soon as her hull and rigging were completed, she proceeded to London to receive her engines and other steam apparatus. She sails between Bristol and New York. The tonnage of this vessel is 1,340, of which it is computed the gross weight of the apparatus is 490; that of the boilers alone, with the water they contain, being 180, and the piston-cranks 17 tons each. In the space surrounding the engines is stowage room, in iron boxes of very convenient construction, for 800 tons of coal; while her paddle-wheels are not less than 38 feet in diameter, and are moved by a 450 horse power. This statement will convey some idea of the force and rapidity with which she can be propelled through the water; and she has justified the confident expectations of her owners, and of the scientific persons who visited and examined her apparatus, that with fair average weather, she would perform the voyage to New York in about twelve or fourteen days.

This vessel has been inspected by an immense number of the nobility. She is one of the most superb steamers that has ever been launched, and is, without question, one of the finest specimens that ever graced the Atlantic.



## LESSON XVII.

## INFLUENCE OF RELIGION ON THE TYROLESE.

Surprising	barbarism	impervious
inhabitants	inhospitable	invisible
cultivation	desolation	banditti
inaccessible	thankfulness	acknowledge
humanized	penetrate	indulgence
ferocity	fastnesses	mountaineer

WHAT is it, then, which has wrought so surprising a change in the manners and habits in Europe, of the inhabitants of the great mountain girdle of the earth? What is it which has spread cultivation through wastes deemed, in ancient times, inaccessible to improvement, and humanized the manners of a people, remarkable only, under the Roman sway, for the ferocity and barbarism of their customs?

What but the influence of religion; of that faith which has calmed the savage passions of the human mind, and spread its beneficial influence amongst the remotest habitations of men, and which prompted its disciples to leave the luxuries and comforts of southern civilization, to diffuse knowledge and humanity through inhospitable realms, and spread, even amidst the regions of desolation, the light of knowledge and the blessings of Christianity. Impressed with these ideas, the traveller, in crossing the St. Bernard, and comparing the perfect safety with which he now

can explore the most solitary parts of these mountains, with the perils of the passage attested by votive offerings, even in the days of Adrian and the Antonines, will think with thankfulness of the religion by which this wonderful change has been effected, and with veneration of the saint whose name has, for a thousand years, been affixed to the pass where his influence first reclaimed the people from their barbarous life: and in crossing the defile of Mount Brenner, where the abbey of Wilten first offered an asylum to the pilgrim, he will feel, with a late amiable and eloquent writer, "how fortunate it is that religion has penetrated these fastnesses, impervious to human power, and, where precautions are impossible and resistance useless, spread her invisible ægis over the traveller, and conducts him secure under her protection, through all the dangers of his way."

When in such situations he reflects upon his security, and recollects that these mountains, so savage and so well adapted to the purposes of murderers and banditti, have not in the memory of man been stained with human blood, he ought to do justice to the cause, and gratefully to acknowledge the influence of religion. Impressed with these ideas, he will behold with indulgence, perhaps even with interest, the crosses which frequently mark the brow of a precipice, and the little chapels hollowed out of the rock, where the road is narrowed; he will consider them as so many pledges of security, and rest assured, that so long as the pious mountaineer continues to adore the

“ Good Shepherd,” and to implore the prayer of the “ Afflicted Mother,” he will never cease to befriend the traveller, nor to discharge the duties of hospitality.

ALISON.

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## LESSON XVIII.

### TO MY MOTHER.

AND canst thou, mother ! for a moment think  
 That we, thy children, when old age shall shed  
 Its blanching honours on thy drooping head,  
 Could from our best of duties ever shrink ?  
 Sooner the sun from his high sphere should sink,  
 Than we, ungrateful, leave thee in that day,  
 To pine in solitude thy life away,  
 Or shun thee, tottering on the grave’s cold brink.  
 Banish the thought !—where’er our steps may roam,  
 O’er smiling plains, or wastes without a tree,  
 Still will fond memory point our hearts to thee,  
 And paint the pleasures of thy peaceful home,  
 While duty bids us all thy griefs assuage,  
 And smooth the pillow of thy sinking age.

H. K. WHITE.

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## LESSON XIX.

### THE FIRE-FLY.

THERE is an insect, that, when evening comes,  
 Small though he be, scarcely distinguishable,  
 Like evening clad in soberest livery,

Unsheathes his wings, and through the woods and  
glades

Scatters a marvellous splendour. On he wheels,  
Blazing by fits, as from excess of joy,  
Each gush of light a gush of ecstasy ;  
Nor unaccompanied ; thousands that fling  
A radiance all their own, not of the day,  
Thousands as bright as he, from dusk till dawn,  
Soaring, descending.

Oft have I met

This shining race, when in the Tusculan groves  
My path no longer glimmered ; oft among  
Those trees, religious once and always green,  
That yet dream out their stories of old Rome  
Over the Alban lake ; oft met and hailed,  
Where the precipitate Anio thunders down,  
And through the surging mist a poet's house  
(So some aver, and who would not believe ?)  
Reveals itself.—Yet cannot I forget  
Him\*, who rejoiced me in those walks at eve,  
My earliest, pleasantest ; who dwells unseen,  
And in our northern clime, when all is still,  
Nightly keeps watch, nightly in bush or brake  
His lonely lamp rekindling. Unlike theirs,  
His, if less dazzling, through the darkness knows  
No intermission ; sending forth its ray  
Through the green leaves, a ray serene and clear  
As virtue's own.

ROGERS.

\* The glow-worm.

## SECTION VI.

## LESSON I.

## BIRDS.

Interval	tegument	intellectual
subdivided	satisfactorily	element
impermeable	convexity	anticipate
mandible	perception	variations
organization	industry	superstition
analogous	constructing	imagination

Of all the classes of animals, that of birds is the most strongly marked, and that in which the species have the greatest resemblance, and which is separated from all the others by a wider interval. This fact, however, renders it more difficult to subdivide them.

These subdivisions are grounded, as in the mammalia, on the organs of food, and of prehension, that is, the beak and toes.

One is struck first with the *palmated* feet, that is, when the toes are united by membranes, a character which distinguishes all the *swimming birds*. The position of these feet behind; the length of the sternum; the neck often longer than the legs, to reach downward; the plumage close, shining, impermeable to water, agree with the feet in constituting the web-footed fowls good swimmers.

In other birds, which also have frequently some small webs to the feet, at least between the external toes, we observe elevated tarsi, legs denuded of feathers towards the base, a tall stature, in one word, all arrangements necessary for fording in shallow water, for the purpose of seeking their food. Such, indeed, is the regimen of the greater number of these; and although some of them live on dry land, they are named *waders*, or *grallæ*.

Amongst the truly terrestrial birds, the *gallinacea* have, like our domestic poultry, a heavy carriage, a short flight, the beak moderate, with the upper mandible vaulted, the nostrils swelling out, and partly covered by a soft scale, and almost always the edges of the toes indented, with short membranes between the bases of those before. They live principally on grain.

The *birds of prey* have the beak crooked, with the point sharp, and bent towards the base; and the nostrils pierced in a membrane, which invests all the base of the beak: the feet are armed with strong nails. They live on flesh, and pursue other birds; hence they have generally a powerful flight. The greater number have, moreover, a small web between the external toes.

The *passerine birds* include many more species than all the other families; but their organization is so analogous, that they cannot be separated, although they vary greatly in size and strength. Their two external toes are united at the base, and sometimes part of the way up their length.

Each of these orders subdivides into families and genera, principally by the conformation of the beak.

Birds are, in general, covered with feathers, a sort of tegument the best adapted to protect them from the effects of the rapid variations of temperature to which their movements expose them. The air cavities which occupy the interior of their body, and which even occupy the place of marrow in the bones, augment their specific lightness.

Sight is extremely perfect in birds, and they have the peculiar faculty of seeing objects near or distant equally well. The means by which this is effected are not satisfactorily explained, though a power of changing the convexity of the eye is probably the proximate cause. Like all other physical peculiarities, it is admirably adapted to the mode of existence of the class; a quick and perfect sight of objects and perception of distances are necessary to the rapidity of their movements and the securing of their prey to birds. All the genera, except the owls, see a single object but with one eye. The situation of these organs, however, enables them to take in a much larger field of view, than animals whose eyes look straight before them.

Every one knows the varied industry employed by birds in constructing their nests, and the tender care they take of their eggs and of their young: this is the principal part of their instinct. For the rest of their qualities, their rapid passage through the different regions of the air, and the

lively and continued action of this element upon them, enable them to anticipate the variations of the atmosphere in a manner of which we can have no idea, and from which has been attributed to them, from all antiquity, by superstition, the power of announcing future events. They are not without memory or imagination, for they dream; and every one knows with what facility they may be tamed, may be made to perform different operations, and retain airs and words.

CUVIER.

## LESSON II.

### EGYPT.

Bahr-el-Abiad	physical	tropical
Abyssinia	conformation	sterility
Damietta	inundations	vivifying
Cairo	intersected	incomparable
Mahometans	irrigation	aromatics
geographical	vegetating	antiquity

EGYPT is one of the most singular countries in the world, not only from its geographical position, but its physical conformation. It consists entirely of the valley of the Nile, which, taking its rise in the mountains of Abyssinia, after traversing for 600 leagues the arid deserts of Africa, and receiving the tributary waters of the Bahr-el-Abiad, precipitates itself by the cataracts of Sennaar into the



lower valley, 200 leagues long, which forms the country of Egypt. This valley, though of such immense length, is only from one to six leagues in breadth, and bounded on either side by the rocky mountains of the desert. Its habitable and cultivated portion is entirely confined to that part of the surface which is overflowed by the inundations of the Nile: as far as the waters rise, the soil is of extraordinary fertility; beyond it the blowing desert is alone to be seen. At the distance of 50 leagues from the sea, the Nile divides itself into two branches, which fall into the Mediterranean, one at Rosetta, the other at Damietta. The triangle having these two branches for its sides, and the sea for its base, is called the *Delta*, and constitutes the richest and most fertile district of Egypt, being perfectly level, intersected by canals, and covered with the most luxuriant vegetation.

The soil of this singular valley was originally as barren as the arid ridges which adjoin it; but it has acquired an extraordinary degree of richness from the well-known inundations of the Nile. These floods, arising from the heavy rains of July and August, in the mountains of Abyssinia, cause the river to rise gradually, during a period of nearly three months. It begins to swell in the middle of June, and continues to rise till the end of September, when it assumes the height of 16 or 18 feet. The fertility of the country is just in proportion to the height of the inundation; hence it is watched with the utmost anxiety by the inhabitants, and public rejoicings are ordered

when the *Nilometer* at Cairo indicates a foot or two of greater depth of water than usual. It never rains in Egypt. Centuries may elapse without more than a shower or drizzling mist moistening the surface of the soil. Hence cultivation can only be extended beyond the level to which the water rises by an artificial system of irrigation; and the efforts made in this respect by the ancient inhabitants constitute, perhaps, the most wonderful of the many monuments of industry which they have left to succeeding ages.

During the inundation, the level plain of Egypt is flooded with water; the villages, detached from each other, communicate only by boats, and appear, like the islands on the *laguna* of Venice, in the midst of the watery waste. No sooner, however, have the floods retired, than the soil, covered to a considerable depth by a rich slime, is cultivated and sown, and the seed, vegetating quickly in that rich mould, and under a tropical sun, springs up, and in three months yields a hundred, and sometimes a hundred-and-fifty-fold. During the whole winter months, the soil is covered with the richest harvests, besprinkled with flowers, and dotted by innumerable flocks; but in March the great heats begin, the earth cracks from excessive drought, vegetation disappears, and the country is fast relapsing into the sterility of the desert, when the annual floods of the Nile again cover it with their vivifying waters.

All the varied productions of the temperate and the torrid zones flourish in this favoured re-

gion. Besides all the grains of Europe, Egypt produces the finest crops of rice, maize, indigo, cotton, and senna. It has no oil, but the opposite coasts of Greece furnish it in abundance; nor coffee, but it is supplied from the adjoining mountains of Arabia. Hardly any trees are to be seen over its vast extent; a few palms and sycamores in the villages, alone, rise above the luxuriant vegetation of the plain. Its horses are celebrated over all the world for their beauty, their spirit, and their incomparable docility; and it possesses the camel, that wonderful animal, which can support thirst for days together, tread without fatigue the moving sands, and traverse, like a living ship, the ocean of the desert. Every year immense caravans arrive at Cairo from Syria and Arabia on the one side, and the interior of Africa on the other. They bring all that belongs to the regions of the sun—gold, ivory, ostrich-feathers, gum, aromatics of all kinds, coffee, tobacco, spices, perfumes, with the numerous slaves, which mark the degradation of the human species in those favoured countries. Cairo becomes, at that period, an *entrepôt* for the finest productions of the earth, for those which the genius of the West will never be able to rival, but for which its opulence and luxury afford a never-failing demand. Thus the commerce of Egypt is the only one on the globe which never can decay; but must, under a tolerable government, continue to flourish, as long as the warmth of Asia furnishes articles, which the industry and perseverance of Europe are desirous of possessing.

In ancient times, Egypt and Lybia, it is well known, were the granary of Rome ; and the masters of the world depended for their subsistence on the floods of the Nile. Even at the time of the conquests of the Mahometans, Egypt is said to have contained 20,000,000 of souls, including those who dwelt in the adjoining oasis of the desert. This vast population is by no means incredible, if the prodigious fertility of the soil, where water can be conveyed, is considered ; and the extent to which, under a paternal government, the system of artificial irrigation can be carried. It is to the general decay of all the great establishments for the watering of the country, which the industry of antiquity had constructed, that we should ascribe the present limited extent of agriculture, and the perpetual encroachments which the sands of the desert are making on the region of human cultivation.

A.



### LESSON III.

#### THE DIVING-BELL.

Compressible	ingenious	stationary
condensed	contrivance	replaced
truncated	cavities	velocity
parallel	orifice	accident
prominences	communication	apprehension
immediately	quantity	prevented

To illustrate the principle of this machine, take a glass tumbler ; plunge it into water, with the mouth

downwards; you will find that very little water will rise into the tumbler; which will be evident, if you lay a piece of cork upon the surface of the water, and put the tumbler over it; for you will see, that though the cork should be carried far below the surface of the water, yet that its upper side is not wetted, the air which was in the tumbler having prevented the entrance of the water; but as air is compressible, it could not entirely exclude the water, which, by its pressure, condensed the air a little.

The first diving-bell of any note was made by Dr. Halley. It is most commonly made in the form of a truncated cone, the smaller end being closed, and the larger one open. It is weighted with lead, and so suspended, that it may sink full of air, with its open base downwards, and as near as may be, parallel to the horizon, so as to close with the surface of the water. Mr. Smeaton's diving-bell was a square chest of cast-iron, four feet and a half in height, four feet and a half in length, and three feet wide, and afforded room for two men to work in it. It was supplied with fresh air by a forcing pump. The sinking and raising of the diving-bell, invented by Dr. Halley, depending entirely on the people at the surface of the water, and being besides of considerable weight, so as to occasion much labour, with a risk of the breaking of the rope, by which it was to be raised, to the sure destruction of those within; a diving-bell has been invented by Mr. Spalding, of Edinburgh, to remedy these defects, and prevent the

edges of the machine from being entangled by any ragged prominences of rock. His machine is of wood, suspended by ropes, and having a leaden weight appended to it, by means of which the mouth of the bell is kept always parallel to the surface of the water, whether the machine, taken altogether, is lighter or heavier than an equal bulk of water. By these weights alone, however, the bell would not sink; another is therefore added, which can be lowered or raised at pleasure, by means of a rope passing over a pully, and fastened to one of the sides of the bell. As the bell descends, this weight, called by Mr. Spalding the *balance weight*, hangs down a considerable way below the mouth of the bell. In case the edge of the bell is caught by any obstacle, the balance weight is immediately lowered down, so that it may rest upon the bottom. By this means the bell is lightened, so that all danger of oversetting is removed; for being lighter, without the balance weight than an equal bulk of water, it is evident that the bell will rise as far as the length of the rope affixed to the balance weight will allow it. This weight, therefore, serves as a kind of anchor to keep the bell at any particular depth which the divers may think necessary; or, by pulling it quite up, the descent may be continued to the very bottom. By another very ingenious contrivance, Mr. Spalding has rendered it possible for the divers to raise the bell, with all the weight appending to it, even to the surface of the water, or to stop it at any particular depth, as they think

proper; and thus they would still be safe, even though the rope designed for pulling up the bell should be broken. For this purpose the bell is divided into two cavities, both made as tight as possible. Just above the second bottom are small slits in the sides of the bell, through which the water, entering as the bell descends, displaces the air originally contained in its cavity, which flies out at the upper orifice of a cock expressly fitted for that purpose. When this is done, the divers turn the handle which stops the cock; so that if any more air were to get into the cavity, it could no longer be discharged through the orifice as before. If, therefore, the divers wish to raise themselves, they turn the cock, by which a communication is made between the upper and under cavities of the bell. The consequence is, that a quantity of air immediately enters the upper cavity, and forces out a quantity of the water contained in it, and thus renders the bell lighter by the whole weight of the water which is displaced; thus, if a certain quantity of air is admitted into the upper cavity, the bell will descend very slowly; if a greater quantity, it will neither ascend nor descend, but remain stationary; and if a larger quantity of air be still admitted, it will rise to the top. It should be observed, however, that the air which is thus let out into the upper cavity, must immediately be replaced from the air-barrel; and the air is to be let out very slowly, or the bell will rise to the top with so great a velocity, that the divers will be in danger of being shaken out of their

seats. But by following these directions, every possible accident may be prevented, and persons may descend to a very great depth without the smallest apprehension of danger. The bell also becomes so easily managed in the water, that it may be conducted from one place to another, by a small boat, with the greatest ease and with perfect safety to those within.

CYCLOPEDIA.

#### LESSON IV.

##### THE NORTH CAPE.

Terminated	vicinity	existence
picturesque	chequered	temperate
immoveable	horizon	particular
spectacle	phenomenon	inhabitants
tremendous	extraordinary	January
ascertained	perpetual	December

THIS cape, forming the most northerly point of the continent of Europe, may be regarded as one of the sublimest wonders of nature. It is situated within the arctic circle, in seventy-one degrees ten minutes north latitude. A late traveller states, that a little before midnight, its rocks appeared to be nearly of an equal height, until they terminated in a perpendicular peak; but on a closer view, those within were found to be much higher than those of the extreme peak, or point. Their gene-



ral appearance was highly picturesque. The sea broke against this immoveable rampart, which had withstood its fury from the remotest ages, and formed a thick border of white froth. This grand spectacle was illuminated by the sun, and the shade which covered the western side of the rocks, rendered their aspect still more tremendous. The height of these rocks could not be ascertained; but everything was on so grand a scale, that a point of comparison could not be afforded by any ordinary known objects.

On landing, the party discovered a grotto, formed of rocks, with a surface washed smooth by the waves, and having within a spring of fresh water. The only accessible spot in the vicinity, was a large hill, surrounded by enormous crags. From the summit of this hill, turning towards the sea, they perceived to the right a prodigious mountain, attached to the cape, and rearing its sterile mass to the skies. To the left, a neck of land, covered with less elevated rocks, against which the surges dashed with great violence, closed the bay, and admitted but a contracted view of the ocean. In order to see as far as possible into the interior, our traveller climbed nearly to the summit of the mountain, where a most singular landscape presented itself to the view. A lake in the foreground had an elevation of at least ninety feet above the level of the sea; and on the top of an adjacent, but less lofty mountain, was another lake. The view was closed by peaked rocks, chequered by several patches of snow. At midnight the sun

still remained many degrees above the horizon, and continued to ascend higher and higher until noon, when having again descended, it passed the north, without dipping below the horizon. This phenomenon, which is equally as extraordinary to the inhabitants of the torrid and temperate zones, as snow is to those who inhabit the torrid zone, could not be viewed without a particular interest. Two months of perpetual day-light, during the whole of which time the sun never sets, seem to place the traveller in a new state of existence, while its effect on the inhabitants of these regions is striking. During the time the sun is perpetually above the horizon, they rise at ten o'clock in the morning, dine at five or six o'clock in the evening, and go to bed at one. But throughout the winter season, from the beginning of December, until the end of January, when the sun never rises, they sleep more than half of the twenty-four hours, and spend the other half in sitting over the fire, all business being at an end, and constant darkness prevailing.



## LESSON V.

### SONG OF THE CAPTIVE LARK.

'Tis merry morn—the sun hath shed  
His light upon the mountain head.  
The golden dews are sparkling now  
On heath and hill, on flower and bough ;

And many a happy song is heard,  
 From every gay rejoicing bird :  
 But never more, alas ! shall I  
 Soar up and sing in yonder sky.

Through these harsh wires I glimpse in vain,  
 The ray that once awoke my strain ;  
 In vain, while coop'd, I fret and pine,  
 My useless wings their strength decline.  
 Sad is my fate, to see the stars  
 Pass one by one before my bars ;  
 And know, when dawn returneth, I  
 No more may sing in yonder sky.

Oh, barbarous you, who still can bear  
 This mournful doom to bid me share—  
 To see me droop and sadden on,  
 With wishful eye, from dawn to dawn ;  
 Beating my little breast in wo,  
 'Gainst these dread wires that vex me so ;  
 And my glad passage still deny  
 To soar and sing in yonder sky !

Oh, let me fly—fly up once more !  
 How would my wing delighted soar !  
 What rapture would my song declare,  
 Pour'd out upon the sunny air !  
 Oh, let me hence depart ! in vain  
 I try to breathe one gladsome strain :  
 In this dark den, I pine, I die ;  
 Oh, let me flee to yonder sky !

LOGAN.

## LESSON VI.

## POPE PIUS VII AND NAPOLEON.

Ancona	Civita Vecchia	determination
Austerlitz	dominions	contributions
Charlemagne	announcement	justified
Quirinal	recognized	definitive
Gaeta	potentate	catacombs
Urbino	territory	responsibility

IN October, 1805, during the course of the Austrian war, the French troops seized upon Ancona, the most important fortress in the ecclesiastical dominions; and the remonstrances of the Pope, (Pius the VII), against this violent invasion, were not only entirely disregarded, but Napoleon, in reply, openly asserted the principle, that he was emperor of Rome, and the Pope was only his viceroy. "All Italy," said Napoleon, "must be subjected to my law: your situation requires, that you should pay me the same respect in temporals, which I do you in spiritual matters. Your holiness must cease to have any delicacy towards my enemies, and those of the Church. *You are sovereign of Rome, but I am its emperor*: all my enemies must be its enemies; no Sardinian, English, Russian, or Swedish envoy can be permitted to reside at your capital." The haughty and disdainful terms of this letter, and the open announcement of an undisguised sovereignty over the Roman states, first opened the eyes of the benevolent Pontiff to the real intention of the

French emperor. He returned an intrepid answer to the conqueror of Austerlitz, that he recognized no earthly potentate as his superior; and from that hour may be dated the hostility which grew up betwixt them. "Your majesty," said Pius the VII, "lays it down as a fundamental principle, that you are sovereign of Rome: the Supreme Pontiff recognizes no such authority, nor any power superior in temporal matters to his own. There is no emperor of Rome: it was not thus that Charlemagne treated our predecessors. The demand to dismiss the envoys of Russia, England, and Sweden, is positively refused; the Father of the Faithful is bound to remain at peace with all, without distinction of Catholics or heretics." Napoleon, so far from relaxing in any of his demands, was only the more aroused, by this unexpected opposition, to increased exactions from the Holy See; his troops spread over the whole Papal territory; Rome itself was surrounded by his battalions; and within half-a-mile of the Quirinal palace, preparations were openly made for the siege of Gaeta.

Pius the VII, however, was unshaken in his determination. "If they choose," said he to M. Alquier, the French envoy, "to seize upon Rome, we shall make no resistance; but we shall refuse them entry to the castle of St. Angelo. All the important points of our territory have been successively occupied by their troops, and the collectors of our taxes can no longer levy any imposts in the greater part of our territory, to provide for

the contributions which have been imposed. We will make no resistance, but your soldiers will require to break open the gates with cannon-shot. Europe shall see how we are treated ; and we shall, at least, prove that we have acted in conformity to our honour and our conscience. If they take away our life, the tomb will do us honour, and we shall be justified in the eyes of God and man."

The French minister soon after intimated, that if the Pope continued on any terms with the enemies of France, the emperor would be under the necessity of detaching the duchy of Urbino, the march of Ancona, and the sea-coast of Civita Vecchia, from the ecclesiastical territories ; but that he would greatly prefer remaining on amicable terms with his holiness ; and with that view, he proposed, as the basis of a definitive arrangement between the two governments, 1st, " That the ports of his holiness should be closed to the British flag, on all occasions when England was at war with France : 2nd, That the Papal fortresses should be occupied by the French troops, on all occasions when a foreign land-force is debarked on *or menaces* the coasts of Italy." To these proposals, which amounted to a complete surrender of even the shadow of independence, the Pope returned a respectful but firm refusal, which concluded with these words : " His majesty may, whenever he pleases, execute his menaces, and take from us whatever we possess. We are resigned to everything, and shall never be so rash as to attempt resistance. Should he desire it, we shall

instantly retire to a convent, or the catacombs of Rome, like the first successors of St. Peter ; but think not, as long as we are entrusted with the responsibility of power, to make us by menaces violate its duties."

ALISON.

## LESSON VII.

### PRAYER.

Privileged	perseverance	appropriated
indispensable	irregularities	prosperity
requisite	necessary	indigence
illiterate	continual	fervency
enlightened	intercourse	despondency
righteousness	established	consolation

PRAYER is not a special gift set apart for privileged souls alone ; it is a common duty imposed upon every believer ; it is not solely a virtue of perfection, and reserved for certain purer and more holy souls ; it is like charity, an indispensable virtue, requisite to the perfect as to the imperfect ; within the capacity of the illiterate equally as of the learned ; commanded to the simple as to the most enlightened ; it is the virtue of all men ; it is the science of every believer ; it is the perfection of every creature. Whoever has a heart, and is capable of loving the Author of his being ; whoever has a reason capable of knowing the nothingness of the creature, and the greatness of

God, must know how to adore, to return him thanks, and to have recourse to him; to appease him when offended; to call upon him when turned away; to thank him when favourable; to humble himself when he strikes; to lay his wants before him, or to entreat his countenance and protection. Thus, be ye who you may that now listen to me, imitate the woman of Canaan; be faithful to prayer, and in the fulfilment of this duty you will find all the rest sustained and rendered easy. If a sinner pray; it was through prayer alone that the publican and the sinful woman of the gospel obtained feelings of compunction, and the grace of a thorough penitence; and prayer is the only source and the only path of righteousness. If righteous, still pray; perseverance in faith and in piety is promised only to prayer; and by prayer it was that Job, that David, that Tobias persevered to the end. If you live amid sinners, and your duty does not permit you to withdraw yourself from the sight of their irregularities and examples, pray; the greater the dangers, the more necessary does prayer become; the three children in the flames, and Jonas in the belly of a monster, found safety only through prayer. If the engagements of your birth or of your station, attach you to the court of kings, pray; Esther, in the court of Assuerus; Daniel, in that of Darius; the prophets in the palaces of the kings of Israel, were solely indebted to prayer for their life and salvation. If you live in retirement, pray: solitude itself becomes a rock, if a continual intercourse



with God does not defend us against ourselves; and Judith in the secrecy of her house, and the widow Ann in the temple, and the Anthonies in the desert, found the fruit and the security of their retreat, in prayer alone. If established in the church for the instruction of the people, pray: all the power and all the success of the ministry must depend upon your prayers; and the apostles converted the universe, solely because they had appropriated nothing to themselves but prayer and the preaching of the Gospel. Lastly, be who you may, I again repeat it, in prosperity or indigence, in joy or in affliction, in trouble or in peace, in fervency or in despondency, in sin or in the ways of righteousness, advanced in virtue, or still in the first steps of penitence, pray: prayer is the safety of all stations, the consolation of all sorrows, the duty of all conditions, the soul of piety, the support of faith, the grand foundation of religion, and all religion itself. O my God! shed then upon us that spirit of grace and of prayer which was to be the distinguishing mark of thy Church, and the portion of a new people; and purify our hearts and our lips, that we may be enabled to offer up to thee pure homages, fervent sighs, and prayers worthy of the eternal riches which thou hast so often promised to those who shall have well entreated thee.

MASSILLON.

## LESSON VIII.

## GRAVITY OR ATTRACTION.

Exemplify	constituent	repulsion
physical	elements	heavenly
exceptions	globules	material
altitude	mercury	immortal
naturally	particles	connecting
contiguous	composed	probably

To exemplify the process by which a general truth or law of nature is discovered, we shall take the physical law of *gravity* or *attraction*. It was observed that bodies in general, if raised from the earth, and left unsupported, fell towards it; while flame, smoke, vapours, &c., if left free, ascended away from the earth. It was held, therefore, to be a very general law, that things had *weight*; but that there were exceptions in such matters as were in their nature *light* or ascending. It was discovered that our globe of earth is surrounded by an ocean of air, having nearly fifty miles of altitude or depth, and of which a cubic foot, taken near the surface of the earth, weighs about an ounce. It was then perceived that flame, smoke, vapour, &c., rise in the air only as oil rises in water, viz., because not so heavy as the fluid by which they are surrounded: it followed, therefore, that nothing was known on earth naturally *light*, in the ancient sense of the word. It was found that bodies floating in water, near to each other, approached and feebly cohered; that

any contiguous hanging bodies were drawn towards each other, so as not to hang quite perpendicularly; and that a plummet, suspended near a hill, was drawn towards the hill with force only so much less than that with which it was drawn towards the earth, viz., the weight of the plummet, as the hill was smaller than the earth. It was then proved, that weight itself is only an instance of a more general *mutual attraction*, operating between all the constituent elements of this globe; and which explains, moreover, the fact of the rotundity of the globe, all the parts being drawn towards a common centre; as also the form of dew-drops, globules of mercury, and of many other things; which, still further, is the reason why the distinct particles of which any solid mass, as a stone or a piece of metal, is composed, cling together as a mass, but which, when overcome by the repulsion of heat, allows the same particles to assume the form of a liquid or air. It was farther observed, that all the heavenly bodies are round, and must, therefore, consist of materials obeying the same law: and lastly, that these bodies, however distant, attract each other; for that the tides of our ocean rise in obedience to the attraction of the moon, and become high or spring tides, when the moon and sun operate in the same direction. Thus the sublime truth was at last made evident, by the genius of the immortal Newton, that there is a power of attraction connecting together the bodies of this solar system at least, and probably limited only by the bounds of the universe.

ARNOTT.

## LESSON IX.

## EXCELLENCE AND USES OF THE EYE.

Recreation	exquisite	sensation
emphatically	enchancing	depression
denominated	beneficial	amiable
architects	illuminated	diffident
influenced	distinctness	temporal
transient	brilliancy	eternity

By the agency of this little organ, it is, that one of the most innocent and rational sources of recreation has been opened to the human mind. It is the parent of these delightful classes of elegant science, which have been emphatically denominated the fine arts. By combining those impressions, which it enabled them to treasure in their recollection, the architects of ancient Greece constructed those noble edifices, which, even in their ruins, affect the mind so forcibly by their mingled grandeur and simplicity. By this sense it is, that the sculptor is enabled to enchain the admiration of the world, and to praise the Creator in a lofty manner, by the imitation of his works. By this sense the painter makes us acquainted with the visual splendours of other climes, and secures to a fond domestic circle, the image of a lost and beloved member, even when the hues and form that furnished the subject of his task, are faded into dust and ashes. By this organ it is, that we are made acquainted with the persons and

features of those great men, who have influenced the condition of mankind in times long past, and shed a lustre on the page of history.

But it is not for the purpose of enjoying a brief and transient, although exquisite happiness, that you have been gifted with this enchanting faculty. It is given you for higher and far more beneficial uses. It enables you to behold and applaud the visible wonders of the Creator, and by the constant observation of his benefits, to raise your hearts in gratitude and affection to Him, who fashioned all things into shapes so fair, and tinged them with hues so beautiful.

To appreciate all the excellence of this wonderful organ, cast your eyes in the depth of a starlight night upon the skies. Every star which you there behold, is a globe of many hundreds of miles in diameter, and you can comprehend, by a single glance, many millions of millions of those worlds! Consider, now, the excellence of that little organ, in the bottom of which, that vast circumference, with all those myriads of illuminated worlds, is pictured in so minute a space, with so much accuracy and distinctness.

But it is in the indications which it affords of the affections and emotions of the mind within, that the chief beauty of this organ consists. In what part of the frame are the affections mirrored so beautifully as here? In joy, how bright and sparkling is the appearance of the eye! The lid is raised, and the slight gush of tears heightens the brilliancy of its reflection, while it seems to start

forward, as if eager to meet the impression which has awakened so lively a sensation within the mind. In grief, how touching is its depression!—The lid falls, the lashes droop, and the eyeball seeks the earth, as if unwilling to disturb, by the sight of any other object, the memory of that beloved and long-accustomed one, which it shall never more behold on earth. How amiable its half-shut and retiring look, when merit, diffident even of itself, hesitates to assume its rightful place in the social order! How glorious is the fire which fills it when a tempered zeal for truth, or injured homes and altars, is swelling in the heart! Track it through all its changes, whether it glistens with compassion, lights up with courage, or droops with humility, and in every instance you will find it the silent tongue of the heart—the window of the affections.

Remember, also, the destiny of this sense. It is not given you for purposes merely temporal and earthly. Its destiny in time is not to tempt you to fix your affections on scenes and spectacles which shall pass away, but to furnish you with motives for divine love, and enable you to acquire wisdom. Its destiny in eternity is to behold the God that made it for ever and for ever.

Employ this happy gift with prudence and self-possession, and reserve the full abandonment of its power to that promised time, when it shall be called to look upon light that fades not, hues that change not, and forms which shall never be dissolved.

G. GRIFFIN.

## LESSON X.

## OCEANICA.

Labyrinth	zoophyte	vegetation
archipelago	calcareous	ambiguous
commercial	acquisitions	prismatic
scientific	foliage	picturesque
magnificence	volcano	emerges
originality	generated	amphitheatre

THERE extends over a space of more than 8000 miles a labyrinth of islands, an immense archipelago, in the midst of which are twenty countries, spacious like minor continents, and one of them nearly equalling Europe in extent.

These regions present in every quarter scenes fitted to move the most frigid imagination. Many nations are here found in their earliest infancy. The amplest openings have been afforded for commercial activity. Numberless valuable productions have been already laid under contribution to our insatiable luxury. Here many natural treasures still remain concealed from scientific observation. How numerous are the gulfs, the ports, the straits, the lofty mountains, and the smiling plains! What magnificence, what solitude, what originality, and what variety! Here the zoophyte, the motionless inhabitant of the Pacific Ocean, creates a rampart of calcareous rock round the bank of sand on which it has grown. Grains of seed are brought to this spot by the birds, or wafted by the winds. The nas-

cent verdure makes daily acquisitions of strength, till the young palm waves its verdant foliage over the surface of the waters. Each shallow is converted into an island, and each island improved into a garden. We behold at a distance a dark volcano ruling over a fertile country, generated by its own lava. A rapid and charming vegetation is displayed by the side of heaps of ashes and of scorix. Where the land is more extended, scenes more vast present themselves: sometimes the ambiguous basalt rises majestically in prismatic columns, or lines, to a distance too great for the eye to reach, the solitary shore, with its picturesque ruins. Sometimes enormous primitive peaks boldly shoot up among the clouds; while, hung on their sides, the dark pine forest varies the immense void of the desert with its gloomy shade. In another place, a low coast, covered with mangroves, sloping insensibly beneath the surface of the sea, stretches afar into dangerous shallows, where the noisy waves break into spray. To these sublime horrors a scene of enchantment suddenly succeeds. A new Cythera emerges from the bosom of the enchanted wave. An amphitheatre of verdure rises to our view. Tufted groves mingle their foliage with the brilliant enamel of the meadows. An eternal spring, combining with an eternal autumn, displays its opening blossom along with the ripened fruits.

A perfume of exquisite sweetness embalms the atmosphere, which is continually refreshed by the wholesome breezes from the sea. A thousand



rivulets trickle down the hills, and mingle their plaintive murmurs with the joyful melody of the birds animating the thickets. Under the shade of the cocoa, the smiling, but modest hamlets present themselves, roofed with banana leaves, and decorated with garlands of jessamine. Here might mankind, if they could only throw off their vices, lead lives exempt from trouble and from want. Their bread grows on the trees which shade their lawns, the scenes of their festive amusement. Their light barks glide in peace on the lagoons, protected from the swelling surge by the coral reefs surrounding their whole island, at a short distance from the shore, and confining their domestic water in the stillness of a prison.

MALTE BRUN.



## LESSON XI.

TO THE BLESSED VIRGIN MARY.

As the mute nightingale in closest groves  
 Lies hid at noon, but when day's piercing eye  
 Is lock'd in night, with full heart beating high  
 Poureth her plain song o'er the light she loves :  
 So Virgin, ever pure, and ever blest,  
 Moon of religion, from whose radiant face,  
 Reflected streams the light of heavenly grace  
 On broken hearts, by contrite thoughts oppress'd.

So Mary, they who justly feel the weight  
 Of Heaven's offended Majesty, implore  
 Thy reconciling aid, with suppliant knee:  
 Of sinful man, O sinless Advocate,  
 To thee they turn, nor Him the less adore;  
 'Tis still *His* light they love, less dreadful seen  
 in thee.

G. GRIFFIN.



THERE IS A JOY OF HEAVENLY BIRTH.

THERE is a joy of heavenly birth,  
 More bright than all the joys of earth,  
 'Tis felt—when on Guilt's trembling head  
 The kindly dews of heaven are shed.

And his deep shame and silent tears  
 Efface the stains, the guilt of years,  
 And that dark brow in mercy's glow  
 Rivals the bright unsullied snow.

When boldly o'er the paths of crime,  
 This spirit wings its flight sublime,  
 As over Cedron's gulf, the dove  
 Takes its pure course, and dwells above ;

When earth's discordant passions cease,  
 He feels at last the threefold peace,  
 Peace with the world—its wrongs forgiven—  
 Peace with himself, and peace with Heaven.

## LESSON XII.

## ON FISHES.

Vertebrate	arteries	pectorals
auricle	classification	respiratory
ventricle	membrane	laterally
apparatus	articulations	spherical
oxygen	longitudinally	auditory
deteriorated	filaments	olfactory

A FISH may be defined a vertebrate animal, breathing through the medium of water by means of branchiæ, or gills, having one auricle and one ventricle to the heart, cold red blood, and extremities formed for swimming.

In considering fishes, perhaps the most important thing which offers itself to our attention is, the apparatus called the *branchiæ*, or gills. This apparatus is situated on each side of the neck, and consists of numerous laminæ fixed on arches. These laminæ are covered with innumerable blood-vessels, and are so constructed as to present a considerable surface to the water, so that the blood may receive a sufficient portion of the oxygen contained in that element. As the water in contact with the gills becomes deteriorated, it is necessary that a constant current be caused to flow over them. In most fishes this is effected by their taking the water in at the mouth, and expelling it from under the gill-covers. The blood, which is constantly sent to the branchiæ

from the heart, is distributed by means of the arteries to every part of the body, whence it returns to the heart by means of the veins.

The limbs are formed into fins, the fore-legs constituting what is termed the *pectoral fins*; and the posterior extremities the *ventral fins*; besides these fins, ordinary fishes are furnished with one or two *dorsal fins*, and a *caudal fin*, or tail.

All these fins are not always present, nor when present are they always in the same relative position: the absence of certain fins, and the peculiar position of these organs, afford characters in the classification of fishes. The fins consist of a thin elastic membrane, supported by rays. The rays are of two kinds; those which consist of a single bony piece, usually hard and pointed, are termed spinous rays; and when the rays are formed of numerous portions of bone united by articulations, and frequently divided longitudinally into several filaments, they are called flexible rays. The principal organ of motion is the tail; the dorsal and ventral fins apparently serve to balance the fish, and the pectorals to arrest its progress when required.

The bones of fishes are of a less dense and compact nature than in the higher orders of animals. The skeleton may be divided into four chief parts; the vertebral column, the head, the respiratory apparatus, and the limbs. The vertebral column consists of vertebræ, which are concave at each end and pierced in the middle; and when joined together, the hollow place between each two is occu-

pied by a glutinous substance, which passes from one space to the next, through the hole in each bone.

The teeth in fishes are almost entirely osseous ; they are usually of a simple, spine-like form, and recurved at the tip. Teeth are found in almost every bone in the interior of the mouth.

As regards the senses, those of taste and touch appear to be but slightly developed in fishes. When we find the tongue thickly covered with teeth, as is often the case, and used as an organ of prehension ; and when we consider the quick manner in which the food is swallowed, it would certainly appear that their sense of taste is very slight.

The eyes are differently placed in the various species of fishes, in accordance with their habits ; for the most part they are placed laterally, and in some, as those that live at the bottom of the water, we find them directed upwards.

The sight of fishes is acute ; the range of vision, however, is probably somewhat limited. The eyes, which are furnished with a spherical lens, are generally large ; but in some species they are very small, whilst others appear to be destitute of them.

Although fishes appear not to possess certain portions of the auditory apparatus observed in animals of a higher grade, they, nevertheless, possess the sense of hearing.

There are reasons for the belief, that the sense of smell in fishes is tolerably acute ; their olfactory nerves are of a large size, and disposed over a considerable extent of surface.

By far the greater number of fishes are of carnivorous habits; there are some, however, which feed upon vegetable substances, and we find the stomach modified accordingly, as in other animals.

CYCLOPEDIA.



## LESSON XIII.

### ARCHITECTURE.

Tuscan	capitals	triglyphs
Doric	architrave	metopes
Ionic	frieze	acanthus
Corinthian	cornice	buttresses
Composite	symmetry	pinnacles
columns	entablature	canopies

THE art of building has, from the earliest periods of society, been cultivated by mankind; and the origin of all buildings may be deduced from the construction of the meanest huts. These were, at first, made in a conical form, which is the simplest in structure; but being inconvenient, on account of its inclined sides, both the form and construction of the huts were changed, by giving them the shape of a cube. Mankind at length improved in the art of building, and invented methods of rendering their habitations durable and convenient. The trunks of trees, deprived of their bark and other inequalities of surface, were raised above the humid soil, by means of stones, and covered each with a flat stone, or slate, to exclude the rain;

and the interstices between the ends of the joists were closed with wax or clay. The roof was altered, and elevated in the centre by rafters, to support the materials of the covering, and to carry off the water. When the rude builder erected more stately edifices, he imitated those parts which, from necessity, had composed the primitive huts. The upright trees, with stones at each end, became the origin of columns, bases, and capitals; and the beams, joists, and rafters, which formed the covering, gave rise to architraves, friezes, and cornices.

The Greeks, whose genius prompted them to combine elegance and convenience, derived their ideas of building from the Egyptians. But the mind of man is influenced by the government under which he lives; the Greeks lost, with their independence, the ascendancy in works of genius, and from that period the Romans encouraged this noble art. Vitruvius, the learned Roman architect, had Julius Cæsar and Augustus for his patrons, and though employed in few works of magnificence, his rules for architecture were highly esteemed by the ancients, and are still a standard among the moderns. The Romans carried to the highest perfection the five orders of architecture: the Tuscan, the Doric, the Ionic, the Corinthian, and the Composite; and though the moderns have materially improved the general structure of buildings, nothing has been added to the beauty and symmetry of these columns. To give an idea of the orders, it must be observed, that the whole of each is divided into two parts at least; the column

and entablature: and of four parts at most, when there is a pedestal under the column, and an acroterat, or little pedestal, surrounded by the entablature: that the column has three parts, the base, the shaft, and the capital; the entablature has three likewise, the architraves, the frieze, and the cornice.

The *Tuscan* order has its name and origin in Tuscany, first inhabited by a colony from Lydia, whence it is likely the order is but the simplified Doric. On account of its strong and massive proportions, it is called the *Rustic* order, and is chiefly used in edifices of that character, composed of a few parts, devoid of ornament, and capable of supporting the heaviest weights. The Tuscan order will always live where strength and solidity are required.

The Trajan column at Rome, of this order, is less remarkable for the beauty of its proportions, than for the admirable pillar with which it is decorated. Its column is seven diameters high; and its capital, base, and entablature, have but few mouldings or ornaments.

The *Doric* order, so called from Dorus, who built a magnificent temple in the city of Argos, and dedicated it to Juno, is grave, robust, and of masculine appearance, whence it is figuratively termed the *Herculean* order.

The Doric order possesses nearly the same character for strength as the Tuscan, but it is enlivened with ornaments in the frieze and capital. In various ancient remains of this order, the pro-



portions of the columns are different. Ion, who built a temple to Apollo in Asia, taking his idea from the structure of man, gave six times the diameter of the base for the height of the column. This order has no ornament on its base, or on its capital: its height is eight diameters; its frieze is divided into triglyphs and metopes, where all the parts of the order are accurately defined; which gives it complete.

The *Ionic* order derived its origin from the people of Ionia. The column is more slender than the Doric, but more graceful. Its ornaments are elegant, and in a style between the richness of the Corinthian, and the plainness of the Tuscan; simple, graceful, and majestic. When Hermogenes built the temple of Bacchus, at Teos, he rejected the Doric after the marbles had been prepared, and in its stead adopted the Ionic.

The temples of Diana at Ephesus, of Apollo at Miletus, and of the Delphic oracle, were of this order. Michael Angelo, contrary to all other authors, gives the Ionic a single row of leaves at the bottom of the capital.

The *Corinthian*, the finest of all the orders, and as first used at Corinth, is expressive of delicacy, tenderness, and beauty. The capital, so rich and graceful, was suggested to Callimachus, by an acanthus entwining its leaves around a votive basket, that adorned the grave of an illustrious young lady. The column is ten diameters high.

The *Composite* order, invented, it is said, by the Romans, partakes of the Ionic and Corinthian

orders ; but principally of the latter. Its column is ten diameters high, and its cornice has denticles, or simple modillions.

Gothic architecture has numerous and prominent buttresses, lofty spires and pinnacles, large and ramified windows, ornamental niches and canopies, with sculptured saints and angels, delicate lace-work, fretted roofs, and an indiscriminate profusion of ornaments. But its most distinguishing characters are small clustered pillars and pointed arches, formed by the segments of two intersecting circles. This style is supposed by some to be of Arabian origin, introduced into Europe by the Crusaders, or those who made pilgrimages to the Holy Land; while Dr. Milner thinks we are indebted for it to the Anglo-Normans and the English.

CYCLOPEDIA.



## LESSON XIV.

### THE GIANT'S CAUSEWAY.

Curiosity	impending	articulated
basaltic	perpendicular	concavity
pentagonal	considerably	correspondent
hexagonal	extraordinary	inverted
precipice	particularly	uniformity
narrowest	composition	dissimilitude

ON the north-west of the county of Antrim, opening into the Atlantic, is a great natural curiosity ; it consists of a vast collection of basaltic

pillars, extending several miles along the coast, and divided into fragments or parts of causeways.

The chief causeway consists of a regular arrangement of millions of pentagonal and hexagonal columns, of basalt, a deep greyish blue-coloured stone, harder than marble: the pillars are chiefly in the form of a pentagon, so closely situated on their sides, though perfectly distinct from top to bottom, that scarcely anything can be introduced between them. The columns are of an unequal height and breadth; some of the highest visible above the surface of the strand and at the foot of the precipice, are about twenty feet; none of the principal arrangement exceeds this height; how deep they are under the surface has not yet been ascertained. This causeway extends nearly two hundred yards, visible at low water, how far beyond is uncertain; from its declining appearance, however, towards the sea, it is probable it does not extend under water to a distance anything equal to what is seen above. The breadth of the causeway, which runs out into one continued range of columns, is, in general, from twenty to thirty feet; at one place or two, it may be nearly forty feet for a few yards. The highest part of this causeway is the narrowest, at the very foot of the impending cliff, whence the whole projects, where, for four or five yards, it is from ten to fifteen feet.

The columns of this narrow part incline from a perpendicular a little to the westward, and form a slope on their tops, by the very unequal height of the columns on the two sides, by which an ascent

is made at the foot of the cliff from the head of one column to the next above, to the top of the causeway, which, at the distance of half a dozen yards from this, assumes a perpendicular position, and lowering in its general height, widens to from twenty to thirty feet, and for one hundred yards nearly, is always above water. The tops of the columns for this length being nearly of an equal height, they form a grand and singular parade, that may be easily walked on, rather inclining to the water's edge. But from high water-mark, by the continued surges on every return of the tide, the platform lowers considerably, and becomes more and more uneven, so as not to be walked on but with the greatest care. At the distance of a hundred and fifty yards from the cliff, it turns a little to the east for twenty or thirty yards, and then sinks into the sea.

The form of these columns is mostly pentagonal, or five-sided; some few are of three, four, and six sides: what is very extraordinary, and particularly curious, is, that there are not two columns among ten thousand to be found, that either have their sides equal amongst themselves, or whose figures are alike. Nor is the composition of these columns or pillars less deserving the attention of the curious spectator. They are not of one solid stone in an upright position, but composed of several short lengths, curiously joined, not with flat surfaces, but articulated into each other like a ball and socket, the one end at the joint having a cavity, into which the convex end of the opposite is ex-

actly fitted. The depth of the concavity is generally about three or four inches. And what is still further remarkable of the joint, the convexity and correspondent concavity are not conformed to the external angular figure of the column, but exactly round, and as large as the diameter of the column will admit, and consequently, as the angles of these columns are in general extremely unequal, the circular edges of the joint seldom coincide with more than two or three sides of the pentagonal, and from the edge of the circular part of the joint to the exterior sides and angles, they are quite plain. It is likewise very remarkable, that the articulations of these joints are frequently inverted ; in some the concavity is upwards, in others the reverse. The length, also, of these particular stones, from joint to joint, is various ; in general they are from eighteen to twenty-four inches long, and for the most part longer towards the bottom of the column than nearer the top, and the articulation of the joints something deeper. The size of the columns is as different as their length and form ; in general they are from fifteen to twenty inches in diameter. There is no trace, or uniformity of design, throughout the whole combination, except in the form of the joint and the general pentagonal shape. What is extraordinary and curious is, that notwithstanding the universal dissimilitude of the columns, both as to their figure and diameter, and though perfectly distinct from top to bottom, yet is the whole so closely joined at all points, that there is scarcely room to intro-

duce a knife between them, either on the sides or angles.

The whole exhibition of this great plan of nature, so far superior to the little things done by man, is a confused regularity and disuniformity, displaying too much diversity of plan to be all seen or comprehended at once. A considerable way along the coast, the cliffs, rising in some parts from two to three hundred fathoms above the level of the sea, present similar appearances. At the point which bounds the bay on the east, and just above the narrowest part of the greatest causeway, a long collection of pillars, called the *needles*, are seen, the tops of which, just appearing out of the sloping bank, plainly show them to be in an oblique position, and about half way between the perpendicular and horizontal. These seem to have been removed from a perpendicular to their present oblique position, by the sinking or falling of the cliff.

CLARKE.



## LESSON XV.

### REPTILES.

Contraction	cerebellum	trachea
respiration	pulmonary	larynx
irritability	arresting	possessing
quadrupeds	mammifera	occasion
lethargy	cellules	teguments
sensations	parietes	retaining

REPTILES have the heart disposed in such a manner, as that, on each contraction, it sends into the

lungs only a portion of the blood which it has received from the various parts of the body, and the rest of that fluid returns to the several parts, without having passed through the lungs, and undergone the action of respiration.

From this it results, that the oxygen acts less on the blood than in the mammifera. If the quantity of respiration in the latter animals, in which the whole of the blood passes through the lungs, before returning to the parts, be expressed by unity, the quantity of respiration in the reptiles must be expressed by a fraction of unity so much the smaller, as the portion of the blood sent to the lungs on each contraction of the heart, is less.

As respiration communicates to the blood its heat, and to the fibres their nervous irritability, so we find, that reptiles have cold blood, and that their muscular power is less, upon the whole, than that of quadrupeds, and, consequently, than that of birds. Accordingly, they do not often perform any movements, but those of creeping and of swimming; and though many of them leap, and run fast enough, on some occasions, their general habits are lazy, their digestion exceedingly slow, their sensations obtuse, and in cold and temperate climates, they pass almost the entire winter in a state of lethargy. Their brain, proportionally smaller, is not so necessary to the exercise of their animal and vital faculties, as it is in the first two classes of the animal kingdom. Their sensations appear less referable to a common centre. They

continue to live and exhibit voluntary motions after having lost the brain, and even after decapitation, and that for a very considerable time. The connexion with the nervous system is also much less necessary to the contraction of their fibres, and their flesh, after having been separated from the rest of the body, preserves its irritability much longer than in the classes already named. Their heart will beat for several hours after it has been plucked out, and its loss does not hinder the body from moving for a long time. In many of them it has been observed, that the cerebellum is remarkably small, which perfectly accords with their little propensity to motion.

The smallness of the pulmonary vessels permits reptiles to suspend their respiration without arresting the course of the blood; accordingly, they dive more easily, and for a longer time, than mammifera or birds: the cellules of their lungs being less on their parietes, are much wider, and those organs have sometimes the form of simple sacs, which are scarcely cellular.

Reptiles are provided with a trachea and larynx, though the faculty of an audible voice is not accorded to them all.

Not possessing warm blood, they have no occasion for teguments capable of retaining the heat, and they are covered with scales, or simply with a naked skin.

CUVIER.



## LESSON XVI.

## GUADALOUPE.

Antilles	Petite-terre	government
Basse-terre	Saintes	beautifully
Caribbean	St. Martin	impetuously
Grande-terre	Points-de-chateaux	occasionally
Marie-Galante	Atlantic	illusion
Desiderada	Pointe-à-Pitre	animation

THIS island is one of the most windward or eastern of the West India Islands; and in that group, which, by the French, are styled the *Antilles*. This (Basse-terre) is the seat of government; its port, if it may be so called, is but an open road in the Caribbean Sea, the water of which is beautifully clear. We are, as you may observe by the map, a little lower than the sixteenth degree of latitude, on the south-western side of the island. The town is small, but it contains two parishes; the number of inhabitants between five and six thousand, a poor fort and good barracks, and an excellent hospital, served by Sisters of Charity. It is the residence of the governor of Guadaloupe and its dependencies; that is, Guadaloupe and Grande-terre, which appear on our maps as one island, Marie-Galante, Desiderada, Petite-terre, and farther west, a small cluster round two islands, called Saintes, St. Martin, and a few other specks, the entire population of which is upwards of 100,000, about half of whom are slaves, and nearly

half the remainder free persons of colour, from jet to pale lemon tinge.

On Friday morning we discovered the island to the west, as we had gone considerably to the east for the purpose of getting into the trade winds. The appearance of the island was very beautiful. Points-de-chateaux presented to us the appearance of four or five bold castles rising above the horizon, and stretching off to the east from the land of Grande-terre, which raised the dusky summit of its regular hills in a long line, till lost in the distance, and in the gray of twilight. Occasionally the hoary surf threw a mantle of white over the dark walls of these ancient fortifications. Half an hour, however, detected the illusion, and showed us the work of nature, and not of art, in the masses of rock, which opposed themselves as castles to the billows of the Atlantic. A strong current, of nearly half a mile wide, ran impetuously between the outer and the inner masses. We now had the land at a mile distant. The coffee-trees, the sugar-cane, the cocoa, and occasionally the palm-tree, gave a beautiful verdure to a varied and broken country, richly studded with dwellings, and the hills topped by several windmills. The island of Marie-Galante now appeared about from fifteen to twenty miles to the south on our larboard. It is bold and lofty, and served to diversify the scene; whilst a fine brig, working up for Pointe-à-Pitre, gave life and animation to the whole. This was soon increased by half a dozen small sails of boats and little trading smacks, that run be-

tween the islands. None of the hills of Grande-terre seemed to rise higher than the Giant's Stairs near Cork, but the scenery was nearly as rich as that on your right hand from Lough Mahon to that city. About ten o'clock the mountains of Guadaloupe showed darkly and boldly, mingled with mists upon the western horizon: a few land squalls gave activity to our crew, and motion to our ship; the brig led the way; the entrance towards the harbour of Pointe-à-Pitre began to open; the tri-colour was hoisted at the stern of each ship; her consignee's signal was now substituted for the pilot-flag, which came down from the foremast, as the boat which contained this important being was seen to approach.

DR. ENGLAND.

## LESSON XVII.

### JEPHTE'S DAUGHTER.

THE tears upon her cheek were dried,  
 Her song of mourning ceased to swell,  
 And its last cadence gently died,  
 In that dark word of grief—farewell !  
 The virgins took their last embrace,  
 But on her calm and saintly brow  
 No earthly feeling left a trace,  
 For all was sacred triumph now.

Like some sweet flower, on whose pale bloom  
 The shadowy rain-drops lightly fade,  
 When trembling from the tempest's gloom,  
 It smiles, in summer pride arrayed.  
 'Twas thus the victim, on whose head  
 The garland shone—each grief beguiled,  
 As brighter hopes their glory shed—  
 In her pale beauty sweetly smiled.

She kissed her father's hand, which shook  
 With pain above her bosom's swell,  
 She fixed above, her stedfast look,  
 And, like the wounded dove, she fell.  
 'Twere vain to tell the joy disclosed  
 In her dark eye—the triumph sweet,  
 Ere yet the trembling lid had closed,  
 And her young heart had ceased to beat.

Then rose a wild and deep lament  
 From those who clasped her hand in death ;  
 But he who madly o'er her bent,  
 Could he lament, could he forget ?  
 They wailed by Galilee's dark strand,  
 O'er Sion's hill and Jordan's water,  
 And many a year through Judah's land  
 They mourned the fate of Jephthe's daughter.



## LESSON XVIII.

## ON THE FIGURE OF THE EARTH.

Adduced	phenomena	eclipses
spherical	altitude	invalidate
cylindrical	equator	hypothesis
globular	hemisphere	artificial
convexity	longitude	inequalities
declivity	latitude	antipodes

THE reasons which are now adduced, in proof of the spherical figure of the earth, are so simple ; and the principles on which they are based, so evident, that we are astonished to think how the ancients could remain so long ignorant of this fact. The opinions of those among them, who imagined it to be cylindrical, or in the form of a drum, approached nearest to the truth ; but the general notion was, that the earth was a vast extended plane, bounded by the ocean. This, perhaps, is the idea which every common observer would form. The more attentive inquirer will, however, easily perceive the visible effects of the globular form of the earth from the following appearances. A person on shore can see the masts and rigging of a vessel at sea, when the hull is entirely concealed by the convexity of the water. As the vessel approaches the place of observation, she seems as if ascending a gentle acclivity, and the contrary appearance takes place as she recedes from the shore. The phenomena will be precisely

the same to a person on board, with regard to the objects on land; and this occurring in every part of the world, no matter what may be the bearing of the objects, or the course of the vessel, it obviously follows, that the figure of the earth must be that of a sphere or globe, as these observations cannot be reconciled with any other form whatever.

The shadow of the earth on the moon, as seen at the lunar eclipses, being always, and under all circumstances, circular, strengthens this opinion. But the voyages of those who have actually sailed round the earth, are experimental proofs of its spherical form from east to west, and that it is so from north to south, is manifest from observations made on the polar star, which increases in altitude as we approach the pole, while all the stars in the southern hemisphere diminish in altitude. On the other hand, as we approach the equator, the polar star, and all the stars of the northern hemisphere, decrease in altitude, whilst those of the southern hemisphere are seen to increase; appearances which could not possibly take place, had the earth been a plane or a cylinder. We may also add, that the change in the degrees of longitude, in different latitudes, and the fact, that eclipses of the moon are seen sooner by those who live eastward, than by those who live westward, in the ratio of one hour to fifteen degrees of longitude, are additional proofs of the earth's spherical form.

Nor can any objection, arising from the inequalities on the earth's surface, invalidate this hypothesis; as it may be easily shown by a simple

proportion, that the highest mountains on the earth would not, on one of our largest globes, be the hundreth part of an inch in elevation; and as this would not be discernible on an artificial globe, so neither ought the greatest inequalities on the earth prevent us from considering it spherical. It is not true, as stated by certain authors, that some of the Fathers of the Church went so far as to pronounce it heretical for any person to declare that there was such people as the antipodes. This calumny was founded on the fact that the Church did condemn certain heretics, who, from vague notions of the form of the earth, confounded the antipodes with a pretended race of human beings, that they said, were not descended from Adam, nor redeemed by Christ.

So many united proofs, as well as the accuracy of so many astronomical observations, all of which have been made and calculated upon the supposition of the sphericity of our earth, leave no room for reasonable doubts upon the subject. In vain does ignorance demand of us how the earth can remain suspended in the air without any support. Let us look upon the heavens, and observe how many other globes roll in space. Let us then lay aside all uneasiness concerning the "antipodes," that is, the people of the earth whose feet are turned towards ours: there is upon the globe neither high nor low; the antipodes see, in like manner as we do, the earth under their feet, and the sky over their heads.

A.

## LESSON XIX.

## INSECTS.

Exsanguious	economy	unwearied
incisures	profusion	wonderful
assiduity	organized	inimitable
sagacity	perceptible	propensity
variation	unctuous	tenderness
terminates	astonishment	competition

INSECTS, in natural history, a smaller sort of animals, commonly supposed to be exsanguious; and distinguished by certain incisures, cuttings, or indentings, in their bodies. The word is originally Latin, formed of *in*, and *seco*, "I cut;" the reason of which is, that in some of this tribe, as ants, the body seems to be cut or divided into two; or because the bodies of many, as worms, caterpillars, &c., are composed of divers circles, or rings, which are a sort of *incisuræ*.

By some natural historians, this class of animals is considered as the most imperfect of any, while others prefer them to the larger animals. One mark of their imperfection is said to be, that many of them can live a long time, though deprived of those organs which are necessary to life in the higher ranks of nature. Many of them are furnished with lungs, and a heart, like the nobler animals; yet the caterpillar continues to live, though its heart and lungs are entirely eaten away, which is often the case. It is not, however, from their conformation alone that insects are inferior to other animals, but from their instincts also. It



is true, that the ant and the bee present us with striking instances of assiduity ; yet, even these are inferior to the marks of sagacity displayed by the larger animals. A bee taken from the swarm is totally helpless and inactive, incapable of giving the smallest variation to its instincts. It has but one single method of operating ; and if put from that, it can turn to no other. In the pursuits of the hound, there is something like choice ; but in the labours of the bee, the whole appears like necessity and compulsion. All other animals are capable of some degree of education ; their instincts may be suppressed or altered ; the dog may be taught to fetch and carry, the bird to whistle a tune, and the serpent to dance ; but the insect has only one invariable method of operating ; no arts can turn it from its instincts ; and indeed its life is too short for instruction, as a single season often terminates its existence. Of all productions in nature, insects are by far the most numerous. The vegetables which cover the surface of the earth bear no proportion to the multitudes of insects ; and though, at first sight, herbs of the field seem to be the parts of organized nature produced in the greatest abundance ; yet, upon more minute inspection, we find every plant supporting a mixture of scarcely perceptible creatures, that fill up the compass of youth, vigour, and age, in the space of a few days' existence. In Lapland, and some parts of America, the insects are so numerous, that if a candle is lighted, they swarm about it in such multitudes, that it is in-

stantly extinguished by them ; and in these parts of the world, the miserable inhabitants are forced to smear their bodies and faces with tar, or some other unctuous composition, to protect them from the stings of their minute enemies.

On the other hand, Swammerdam, a celebrated naturalist, argues for the perfection of insects in the following manner. "After an attentive examination of the nature and anatomy of the smallest as well as the largest animals, I cannot help allowing the least an equal, or perhaps a superior degree of dignity. If, while we dissect with care the larger animals, we are filled with wonder at the elegant disposition of their parts, to what a height is our astonishment raised, when we discover all these parts arranged in the least, in the same regular manner ! Notwithstanding the smallness of ants, nothing hinders our preferring them to the largest animals, if we consider either their unwearied diligence, their wonderful strength, or their inimitable propensity to labour. Their amazing love to their young is still more unparalleled among the larger classes. They not only daily carry them to such places as may afford them food ; but if by accident they are killed, and were cut into pieces, they will with the utmost tenderness carry them away piecemeal in their arms. Who can show such an example among the larger animals, which are dignified with the title of perfect ? Who can find an instance in any other portion of the brute creation that can come in competition with this ?"

## LESSON XX.

## THE ENGLISH LANGUAGE.

Primitive	revolution	imported
revolutions	intercourse	directly
government	dialect	inhabitants
obliterated	possession	continued
intermixture	invaded	affinity
gradually	conqueror	literature

THE language, which is at present spoken throughout Great Britain, is neither the ancient primitive speech of the island, nor derived from it; but is altogether of foreign origin. The language of the first inhabitants of our island, beyond doubt, was the Celtic, or Gaelic, common to them with Gaul: from which country, it appears, by many circumstances, that Great Britain was peopled. This Celtic tongue, which is said to be very expressive and copious, and is, probably, one of the most ancient languages in the world, prevailed once in most of the western regions of Europe. It was the language of Gaul, of Great Britain, of Ireland, and, very probably, of Spain also; till, in the course of those revolutions, which, by means of the conquests, first, of the Romans, and afterwards of the northern nations, changed the government, speech, and, in a manner, the whole face of Europe, this language was gradually obliterated, and now subsists only in the mountains of Wales,

in the Highlands of Scotland, and in Ireland ; for the Welch, the Erse, and the Irish, are no other than different dialects of the same tongue, the ancient Celtic.

This, then, was the language of the primitive Britons, the first inhabitants, that we know of, in our island ; and continued so till the arrival of the Saxons in England, in the year of our Lord 450 : they, having conquered the Britons, did not intermix with them, but expelled them from their habitations, and drove them, together with their language, into the mountains of Wales. The Saxons were one of those northern nations that over-ran Europe ; and their tongue, a dialect of the Gothic, or Teutonic, altogether distinct from the Celtic, laid the foundation of the present English tongue. With some intermixture of Danish, (a language, probably, from the same root with the Saxon,) it continued to be spoken throughout the southern part of the island, till the time of William the Conqueror. He introduced his Norman, or French, as the language of the court, which made a considerable change in the speech of the nation ; and the English, which was spoken afterwards, and continues to be spoken now, is a mixture of the ancient Saxon, and this Norman French, together with such new and foreign words as commerce and learning have, in progress of time, gradually introduced.

The history of the English language can, in this manner, be clearly traced. The language spoken in the low countries of Scotland, is now, and has

been for many centuries, no other than a dialect of the English. How, indeed, or by what steps, the ancient Celtic tongue came to be banished from the low country in Scotland, and to make its retreat into the highlands and islands, cannot be so well pointed out, as how the like revolution was brought about in England. Whether the southern part of Scotland was once subject to the Saxons, and formed a part of the kingdom of Northumberland; or, whether the great number of English exiles that retreated into Scotland, upon the Norman conquest, and upon other occasions, introduced into that country their own language, which afterwards, by the mutual intercourse of the two nations, prevailed over the Celtic, are uncertain and contested points.

From what has been said, it appears that the Teutonic dialect is the basis of our present speech. It has been imported among us in three different forms, the Saxon, the Danish, and the Norman; all which have mingled together in our language. A very great number of our words, too, are plainly derived from the Latin. These we had not directly from the Latin, but most of them, it is probable, entered into our tongue through the channel of that Norman French, which William the Conqueror introduced. For, as the Romans had long been in possession of Gaul, the language spoken in that country, when it was invaded by the Franks and Normans, was a sort of corrupted Latin, mingled with Celtic, to which was given the name of Romance; and as the Franks and Normans

did not, like the Saxons in England, expel the inhabitants, but, after their victories, mingled with them; the language became a compound of the Teutonic dialect imported by these conquerors, and of the former corrupted Latin. Hence, the French language has always continued to have a very considerable affinity with the Latin; and hence, a great number of words of Latin origin, which were in use among the Normans in France, were introduced into our tongue at the conquest; to which, indeed, many have since been added directly from the Latin, in consequence of the great diffusion of Roman literature throughout all Europe.

BLAIR.



## LESSON XXI.

### THE EVERLASTING CHURCH.

Examination	Pepin	Augustin
Pantheon	dynasty	Attila
cameleopards	twilight	Missouri
Flavian	republic	Antioch
Pontiffs	Venice	New Zealand
Napoleon	Papacy	St. Paul's

THERE is not, and there never was, on this earth, a work of human policy so well deserving of examination as the Roman Catholic Church. The history of that Church joins together the two great ages of civilization. No other institution is

left standing which carries the mind back to the time when the smoke of sacrifice rose from the Pantheon, and when cameleopards and tigers bounded in the Flavian amphitheatre. The proudest royal houses are but of yesterday when compared with the line of the Supreme Pontiffs. That line we trace back, in an unbroken series, from the Pope, who crowned Napoleon in the nineteenth century, to the Pope, who crowned Pepin in the eighth; and far beyond the time of Pepin the august dynasty extends, till it is lost in the twilight of fable. The republic of Venice came next in antiquity. But the republic of Venice was modern when compared with the Papacy; and the republic of Venice is gone, and the Papacy remains, not in decay, not a mere antique, but full of life and youthful vigour. The Catholic Church is still sending to the farthest ends of the world missionaries as zealous as those who landed in Kent with Augustin, and still confronting hostile kings with the same spirit with which she confronted Attila. The number of her children is greater than in any former age. Her acquisitions in the new world have more than compensated her for what she has lost in the old. Her spiritual ascendancy extends over the vast countries which lie between the plains of Missouri and Cape Horn; countries, which, a century hence, may not improbably contain a population as large as that which now inhabits Europe. The members of her communion are certainly not fewer than one hundred and fifty millions, and it will not be difficult

to show, that all the other Christian sects united, amount to a hundred and twenty millions. Nor do we see any sign which indicates that the term of her long dominion is approaching. She saw the commencement of all the governments and of all the ecclesiastical establishments that now exist in the world, and feels no assurance that she is not destined to see the end of them all. She was respected before the Saxon had set foot in Britain, before the Frank had passed the Rhine, when Grecian eloquence still flourished at Antioch, when idols were still worshipped in the temple of Mecca; and she may still exist in undiminished vigour, when some traveller from New Zealand shall, in the midst of a vast solitude, take his stand upon a broken arch of London Bridge, to sketch the ruins of St. Paul's.

EDINBURGH REVIEW.

## LESSON XXII.

### TO THE FLYING FISH.

WHEN I have seen thy snowy wing  
O'er the blue wave at evening spring,  
And give those scales of silver white  
So gaily to the eye of light,  
As if thy frame were formed to rise,  
And live amid the glorious skies:  
Oh! it has made me proudly feel



How like thy wing's impatient zeal  
 Is the pure soul, that scorns to rest  
 Upon the world's ignoble breast,  
 But takes the plume that God has given,  
 And rises into light and heaven !

But when I see that wing so bright,  
 Grow languid with a moment's flight,  
 Attempt the paths of air in vain,  
 And sink into the wave again ;  
 Alas ! the flattering pride is o'er ;  
 Like thee, awhile, the soul may soar,  
 But erring man must blush to think  
 Like thee, again, the soul may sink !

Oh, virtue ! when thy clime I seek,  
 Let not my spirit's flight be weak :  
 Let me not, like this feeble thing,  
 With brine still dropping from its wing,  
 Just sparkle in the solar glow,  
 And plunge again to depths below ;  
 But when I leave the grosser throng  
 With whom my soul hath dwelt so long,  
 Let me, in that aspiring day,  
 Cast every lingering stain away,  
 And, panting for thy purer air,  
 Fly up at once, and fix me there !

MOORE.

## DESTRUCTION OF JERUSALEM BY TITUS.

FROM the last hill that looks on thy once holy  
dome,

I beheld thee, O Sion ! when rendered to Rome :  
'Twas thy last sun went down, and the flames of  
thy fall

Flash'd back on the last glance I gave to thy wall.

I look'd for thy temple, I look'd for my home,  
And forgot for a moment my bondage to come ;  
I beheld but the death-fire that fed on thy fane,  
And the fast fetter'd hands that made vengeance  
in vain.

On many an eve, the high spot whence I gazed,  
Had reflected the last beam of day as it blazed,  
While I stood on the height, and beheld the de-  
cline

Of the rays from the mountain that shone on thy  
shrine.

And now on that mountain I stood on that day,  
But I marked not the twilight beam melting away ;  
Oh ! would that the lightning had glared in its stead,  
And the thunderbolt burst on the conqueror's  
head !

But the gods of the pagan shall never profane  
The shrine where Jehovah disdained not to reign ;  
And scatter'd and scorn'd as thy people may be,  
Our worship, O Father ! is only for thee.

BYRON.

## PREFIXES, AFFIXES, AND ROOTS OF WORDS.

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### SAXON AND ENGLISH PREFIXES.

A	signifies <i>on</i> , or <i>in</i> ;	as, <i>afoot, abed, &amp;c.</i>
Be	— <i>about, before</i>	.. <i>besprinkle, bespeak, &amp;c.</i>
En,	— <i>in, on, making</i>	.. <i>enroll, encounter, enable, &amp;c.</i>

(*En* is often changed into *em* ; as, *embark, empower, &c.*)

Fore	— <i>before</i> ;	as, <i>foretell, forewarn, &amp;c.</i>
Mis, un	— <i>negation</i>	.. <i>misinform, undo, &amp;c.</i>
Out, over	— <i>excess</i>	.. <i>outstrip, overload, &amp;c.</i>
Up	— <i>motion upwards</i>	.. <i>upstart, upset, &amp;c.</i>
With	— <i>from, or against</i>	.. <i>withdraw, withstand, &amp;c.</i>
Counter	— <i>contrary</i>	.. <i>counteract, counterbalance.</i>
For	— <i>not</i>	.. <i>forbid, forget.</i>

### LATIN PREFIXES.

A, ab, abs,	signify <i>from, away</i> ;	as, <i>arise, abjure, abstract, &amp;c.</i>
Ad	— <i>to</i>	.. <i>adore.</i>

(*Ad*, in composition with words commencing with a consonant, frequently changes the *d* into the commencing letter of the word with which it is joined, viz., *ascend, accuse, affix, aggravate, ally, annul, apply, arraign, assist, attain.*)

Am, or amb	— <i>about</i> ;	.. as, <i>ambient, ambition.</i>
Ambo	— <i>both</i>	.. <i>ambidextrous.</i>
Ante	— <i>before</i>	.. <i>antecedent, anticipate.</i>
Circum	— <i>around</i>	.. <i>circumspect, circuit.</i>
Cis	— <i>on this side</i>	.. <i>cisalpine.</i>
Con	— <i>together</i>	.. <i>convene, contain.</i>

(This prefix varies in composition, as well as *ad*. As a general rule, nearly all the prefixes are subject to some variation in composition.)

Contra signifies	against ;	as,	contradict.
De	— down, of, from	..	depress, deject.
Dis, di	— asunder	..	distract, disarm, diffuse.
E, ex	— out of	..	egress, eject, exclude.
Extra	— beyond	..	extravagant, extraordinary.
In (before an adjec.)	not	..	inactive, infirm.
In (before a verb)	in, into	..	inject, infuse.
Inter	— between	..	interrupt, intercede.
Intro	— within	..	introduce.
Juxta	— nigh	..	juxtaposition.
Ob	— in the way of	..	obstacle, obstruct, oppose.
Per	— through, thoroughly	..	permit, perforate, pellucid.
Post	— after	..	postpone.
Præ	— before	..	prefix, predict.
Præter	— beyond	..	preternatural, preterite.
Pro	— for, forward	..	pronoun, proceed.
Re	— back, again	..	retract, regain, renovate.
Retro	— backward	..	retrograde, retrospect.
Se	— aside	..	seduce, secede.
Sine	— without	..	sinecure, simplicity.
Sub	— under	..	submit, suffuse, succeed.
Subter	— beneath	..	subterfuge.
Super	— over, above	..	superstructure.

(*Super* has sometimes the French form, *sur*, in composition with English words, as *surmount*, *surpass*, &c.

Trans signifies	beyond, across ;	as,	transact, transport.
Ultra	— beyond	..	ultramontane.

### GREEK PREFIXES.

A	signifies	negation or privation ;	as,	apathetic, anonymous.
Amphi	—	both	..	amphibious.
Ana	—	through, up	..	anatomy.
Anti	—	against	..	Antichrist, antarctic.
Apo	—	from, away	..	apostate, apostle.
Auto	—	self	..	autograph, automaton.
Cata	—	down	..	catapult, catarrh.
Dia	—	through	..	diaphanous, diatribe, diameter
Epi	—	upon	..	epitaph, epigram.
Hyper	—	over, above	..	hypercritical, hyperbole.
Hypo	—	under	..	hypothesis, hypocrite.
Meta	—	instead of, beyond.	..	metaphor, metamorphose.
Para	—	beside, from	..	parallel, parasol.
Peri	—	about	..	perimeter, periphery.
Syn	—	together	..	syntax, sympathy.
Philo	—	friendly to	..	philanthropy, philosophy.

## AFFIXES OR TERMINATIONS.

## NOUNS ENDING IN

-An	} Denote the <i>agent or doer</i> ; as,	Comedian.
-Ant		Accountant.
-Ar		Liar, scholar.
-Ard		Dotard, sluggard.
-Ary		Adversary.
-Eer		Charioteer.
-Ent		Student, correspond- ent.
-Er		Maker, builder, brewer.
-Ist		Elocutionist, psalmist.
-Ive		Representative.
-Or	} Denote the <i>person or thing</i> <i>acted upon</i> , being derived from the Latin and French termina- tions of the past participle— <i>atus</i> , <i>itus</i> , and <i>ée</i> ; as,	Professor.
-Ster		Maltster, tapster.
-Ate		Mandate.
-Ee	} Denote <i>being or a state of</i> <i>being</i> ; as,	Lessee.
-Ité		Favorite.
-Acy		Effeminary.
-Age		Heritage.
-Ance		Inheritance.
-Ancy		Constancy.
-Ence		Reference.
-Ency		Excellency.
-Hood		Neighbourhood.
-Tion or sion		Combustion, adhesion.
-Ism	} Denote <i>being or a state of</i> <i>being</i> ; as,	Heroism.
-Ment		Judgment.
-Mony		Parsimony.
-Ness		Loudness, slowness.
-Ry		Adversary, slavery.
-Ship		Worship.
-Th		Health.
-Tude		Latitude.
-Ty or ity		Plenty, rarity, vanity.
-Ure		Judicature, procedure.
-Y	} Denote <i>jurisdiction</i> ; as,	Butchery, custody.
-Dom		Dukedom.
-Ic, ick		Bishopric, bailiwick.
-Logy		Conchology, osteology.
-Let	} Denotes <i>treating of</i> ; as,	Bracelet.
-Kin		Lambkin.
-Ling		Gosling.
-Ock		Hillock.
-Cle		Particle.

## ADJECTIVES ENDING IN

-Ac	} Denote <i>of</i> or <i>belonging to</i> ; as,	} Ammoniac. Claustal. Meridian. Secular. Military. Brazen. Eccentric, elliptical.
-Al		
-An		
-Ar		
-Ary		
-En		
-Ic or ical		
-Ile	} Denote <i>possessing</i> or <i>abounding in</i> ; as,	} Puerile. Masculine. Transitory.
-Ine		
-Ory		
-Ate		
-Ful		
-Ose		
-Ous		
-Some	} Denote <i>likeness</i> .— <i>Ish</i> sometimes signifies diminution, as reddish, a little red: in most cases it implies some degree of contempt; as,	} Precipitate. Skilful. Verbose. Pompous. Irksome. Pithy.
-Y		
-Ish	} Denote <i>likeness</i> .— <i>Ish</i> sometimes signifies diminution, as reddish, a little red: in most cases it implies some degree of contempt; as,	} Womanish.
-Like		
-Ly	} Denote <i>active capacity</i> ; as,	} Soldierlike.
-Ent		
-Ive	} Denote <i>passive capacity</i> ; as,	} Manly. Resplendent. Persuasive, lenitive.
-Able		
-Ible	} Denotes <i>privation</i> ; as,	} Amiable. Referrible.
-Less		
		Houseless, friendless.

## VERBS ENDING IN

-Ate	{	Denote <i>to make</i> ; as,	Elongate.
-En			Embolden
-Fy			Beautify.
-Ish			Embellish.
-Ise			Criticise.
-Ize			Harmonize.

## WORDS ENDING IN

-Escent	Denotes <i>progression</i> ; as,	Evanescent,
-Ward	Denotes <i>direction</i> ; as,	Upward, Southward.
-Ite	{	Israelite.
-Ote, ot		Sciote, Cypriot.
-An		Austrian.
-Ish		Irish, English.
-Ard		Savoyard, Spaniard.

## EXERCISE.

Let a root be given to the pupil, to which he is to apply all the prefixes and affixes of which it is susceptible, viz., *Form, inform, conform, deform, &c.*; *informer, deformity, conformation, formal, &c. &c.*

## LATIN AND GREEK ROOTS.

## LATIN NOUNS.

Ager, a <i>field</i> , hence, agriculture.	Grex, gregis, a <i>flock</i> , hence, congregate.
Angulus, a <i>corner</i> , .. angular.	Globus, a <i>ball</i> , .. globe.
Animus, the <i>mind</i> , unanimous.	Hæres, an <i>heir</i> , .. inherit.
Anima, the <i>soul</i> , .. animate.	Homo, a <i>man</i> , .. human.
Annus, a <i>year</i> , .. annual.	Honor, <i>honour</i> , honourable.
Aqua, <i>water</i> , .. aqueduct.	Hospes, a <i>host</i> , .. hospitable.
Arbiter, a <i>judge</i> , .. arbitrate.	Hostis, an <i>enemy</i> , .. hostile.
Arma, <i>arms</i> , .. army.	Humus, the <i>ground</i> , .. humid.
Ars, artis, <i>skill</i> , .. artist.	Ignis, <i>fire</i> , .. ignite.
Artus, a <i>joint</i> , .. article.	Insula, an <i>island</i> , .. insular.
Bellum, <i>war</i> , .. belligerent.	Jus, <i>right</i> , .. just.
Caput, capitis, the <i>head</i> , capital.	Juris, <i>right</i> , jurisdiction.
Caro, carnis, <i>flesh</i> , .. carnal.	Lex, legis, <i>law</i> , .. legislate.
Circus, a <i>circle</i> , .. circus.	Liber, a <i>book</i> , .. library.
Civis, a <i>citizen</i> , .. civil.	Libra, a <i>balance</i> , equilibrium.
Cor, cordis, the <i>heart</i> , concord.	Litera, a <i>letter</i> , .. literature.
Corona, a <i>crown</i> , .. coronet.	Locus, a <i>place</i> , .. local.
Corpus, a <i>body</i> , .. corporal.	Fanum, a <i>temple</i> , .. profane.
Crimen, a <i>crime</i> , .. criminal.	Luna, the <i>moon</i> , .. lunar.
Crux, crucis, a <i>cross</i> , .. crucify.	Lux, lucis, <i>light</i> , .. lucid.
Culpa, a <i>fault</i> , .. culpable.	Manus, the <i>hand</i> , .. manual.
Cura, <i>care, business</i> , .. curate.	Mare, the <i>sea</i> , .. marine.
Dens, a <i>tooth</i> , .. dentist.	Mater, <i>mother</i> , .. maternal.
Dies, a <i>day</i> , .. diary.	Merx, mercis, <i>merchandise</i> , merchant.
Dominus, a <i>lord</i> , .. dominion.	Minister, a <i>servant</i> , .. ministry.
Domus, a <i>house</i> , .. domestic.	Modus, a <i>manner</i> , .. model.
Exemplum, an <i>example</i> , exemplary.	Mons, a <i>mountain</i> , .. mount.
Facies, a <i>face</i> , .. surface.	Mors, mortis, <i>death</i> , .. mortal.
Fama, a <i>report</i> , .. famous.	Munus, muneris, a <i>gift</i> , munificence.
Familia, a <i>family</i> , .. familiar.	Musa, a <i>song</i> , .. amuse.
Ferrum, <i>iron</i> , .. ferreous.	Navis, a <i>ship</i> , .. naval.
Finis, the <i>end</i> , or <i>limit</i> , finite.	Nox, noctis, <i>night</i> , .. nocturnal.
Flamma, a <i>flame</i> , .. flambeau.	Numerus, a <i>number</i> , .. numerous.
Flos, floris, a <i>flower</i> , .. florist.	Oculus, the <i>eye</i> , .. oculist.
Femina, a <i>woman</i> , .. feminine.	Opus, operis, <i>work</i> , .. operate.
Folium, a <i>leaf</i> , .. foliage.	Os, ossis, a <i>bone</i> , .. ossify.
Forma, <i>form</i> , .. formation.	Pars, partis, a <i>part</i> , .. particle.
Fraus, <i>deceit</i> , .. fraud.	Pater, <i>father</i> , .. paternal.
Frigus, <i>cold</i> , .. frigid.	Pax, pacis, <i>peace</i> , .. pacific.
Frons, the <i>forehead</i> , .. front.	
Fumus, <i>smoke</i> , .. perfume.	

Pes, <i>pedis</i> , a <i>foot</i> , hence, <i>pedestal</i> .	Semen, <i>seed</i> , hence, <i>disseminate</i> .
Planta, a <i>plant</i> , .. <i>plantation</i> .	Signum, a <i>sign</i> , .. <i>signify</i> .
Pœna, <i>punishment</i> , .. <i>penal</i> .	Socius, a <i>companion</i> , .. <i>social</i> .
Pondus, <i>weight</i> , .. <i>ponder</i> .	Sonus, a <i>sound</i> , .. <i>sonorous</i> .
Populus, the <i>people</i> , .. <i>populate</i> .	Stilla, a <i>drop</i> , .. <i>instil</i> .
Porta, a <i>gate</i> , .. <i>portal</i> .	Tempus, <i>time</i> , .. <i>temporal</i> .
Præda, <i>prey</i> , <i>booty</i> , .. <i>predatory</i> .	Terminus, a <i>bound</i> , .. <i>terminate</i> .
Pretium, <i>price</i> , or <i>reward</i> , <i>precious</i> .	Terra, the <i>earth</i> , .. <i>terrene</i> .
Pugnus, the <i>fist</i> , .. <i>pugnacious</i> .	Testis, a <i>witness</i> , .. <i>testify</i> .
Quies, <i>rest</i> , <i>ease</i> , .. <i>quiescent</i> .	Turba, a <i>crowd</i> , .. <i>turbulent</i> .
Radius, a <i>ray</i> , .. <i>radiant</i> .	Verbum, a <i>word</i> , .. <i>verbose</i> .
Radix, a <i>root</i> , .. <i>radical</i> .	Via, a <i>way</i> , .. <i>devious</i> .
Rota, a <i>wheel</i> , .. <i>rotatory</i> .	Vinum, <i>wine</i> , .. <i>vineyard</i> .
Salus, <i>health</i> , .. <i>salutary</i> .	Unda, a <i>wave</i> , .. <i>undulate</i> .

### LATIN ADJECTIVES.

Acer, <i>acris</i> , <i>sharp</i> , hence, <i>acrid</i> .	Latus, <i>broad</i> , hence, <i>latitude</i> .
Æquus, <i>equal</i> , .. <i>equable</i> .	Laxus, <i>loose</i> , .. <i>laxity</i> .
Amplius, <i>large</i> , .. <i>amplify</i> .	Levis, <i>light</i> , .. <i>levity</i> .
Asper, <i>rough</i> , .. <i>asperity</i> .	Liber, <i>free</i> , .. <i>liberty</i> .
Bonus, <i>good</i> , .. <i>bounty</i> .	Longus, <i>long</i> , .. <i>longitude</i> .
Bene, <i>well</i> , .. <i>benefactor</i> .	Magnus, <i>great</i> , .. <i>magnitude</i> .
Brevis, <i>short</i> , .. <i>brevity</i> .	Malus, <i>bad</i> , .. <i>malice</i> .
Cavus, <i>hollow</i> , .. <i>concave</i> .	Maturus, <i>ripe</i> , .. <i>maturity</i> .
Celeber, <i>renowned</i> , .. <i>celebrate</i> .	Medius, <i>middle</i> , .. <i>medium</i> .
Celer, <i>swift</i> , .. <i>celerity</i> .	Minor, <i>less</i> , .. <i>minority</i> .
Centum, a <i>hundred</i> , .. <i>century</i> .	Mirus, <i>wonderful</i> , .. <i>miracle</i> .
Clarus, <i>clear</i> , .. <i>clarify</i> .	Miser, <i>wretched</i> , .. <i>misery</i> .
Clemens, <i>merciful</i> , .. <i>clemency</i> .	Multus, <i>many</i> , .. <i>multitude</i> .
Curvus, <i>crooked</i> , .. <i>curvature</i> .	Novus, <i>new</i> , .. <i>novel</i> .
Decem, <i>ten</i> , .. <i>decimal</i> .	Par, <i>like</i> , .. <i>parity</i> .
Densus, <i>thick</i> , .. <i>density</i> .	Primus, <i>first</i> , .. <i>primeval</i> .
Dignus, <i>worthy</i> , .. <i>dignity</i> .	Privus, <i>single</i> , .. <i>private</i> .
Dubius, <i>doubtful</i> , .. <i>indubitable</i> .	Probus, <i>honest</i> , .. <i>probity</i> .
Durus, <i>hard</i> , .. <i>durance</i> .	Qualis, <i>of what kind</i> , .. <i>quality</i> .
Felix, <i>happy</i> , .. <i>felicity</i> .	Quatuor, <i>four</i> , .. <i>quarter</i> .
Festus, <i>joyful</i> , .. <i>festive</i> .	Sacer, <i>holy</i> , .. <i>sacred</i> .
Firmus, <i>strong</i> , .. <i>firm</i> .	Sagus, <i>knowing</i> , .. <i>sagacity</i> .
Fortis, <i>brave</i> , .. <i>fortitude</i> .	Senex, <i>old</i> , .. <i>senator</i> .
Grandis, <i>great</i> , .. <i>grandeur</i> .	Severus, <i>severe</i> , .. <i>severity</i> .
Gratus, <i>grateful</i> , .. <i>gratitude</i> .	Similis, <i>like</i> , .. <i>similar</i> .
Gravis, <i>heavy</i> , .. <i>gravity</i> .	Solidus, <i>solid</i> , .. <i>solidity</i> .
Inanis, <i>empty</i> , .. <i>inanity</i> .	Solus, <i>alone</i> , .. <i>solitary</i> .
Integer, <i>whole</i> , .. <i>integrity</i> .	Verus, <i>true</i> , .. <i>verity</i> .



## LATIN VERBS.

Ago, I <i>do</i> or <i>act</i> , hence, agent.	Frango, I <i>break</i> , hence, fragment
Actus, <i>acted</i> , .. actor.	Fractus, <i>broken</i> , .. refract.
Amo, I <i>love</i> , .. amiable.	Fugio, I <i>fly</i> , .. fugitive.
Apto, I <i>fit</i> , .. adapt.	Fulgeo, I <i>shine</i> , .. fulgency.
Arceo, I <i>drive away</i> , .. coerce.	Fundo, I <i>pour out</i> , .. refund.
Ardeo, I <i>burn</i> , .. ardent.	Fusus, <i>poured out</i> , .. fusion.
Arguo, I <i>argue</i> , .. argument.	Genitus, <i>begotten</i> , .. genial.
Audio, I <i>hear</i> , .. audible.	Gradior, I <i>step</i> , .. gradation.
Augeo, I <i>increase</i> , .. augment.	Gressus, <i>stepped</i> , .. ingress.
Bibo, I <i>drink</i> , .. imbibe.	Habeo, I <i>have</i> or <i>hold</i> , habita- tion.
Cado, I <i>fall</i> , .. accident.	Hæreo, I <i>stick</i> , .. adhere.
Cædo, I <i>cut</i> or <i>beat</i> , .. suicide.	Halo, I <i>breathe</i> , .. exhale.
Cando, I <i>burn</i> , .. candle.	Jactus, <i>thrown</i> , .. abject.
Cano, I <i>sing</i> , .. canticle.	Junctus, <i>joined</i> , .. adjunct.
Cantus, <i>sung</i> , }	Lego, I <i>send away</i> , .. legate.
Capio, I <i>take</i> , .. capable.	Lego, I <i>read</i> , .. legible.
Captus, <i>taken</i> , .. captive.	Lectus, <i>read</i> , .. lecture.
Cedo, I <i>yield</i> , .. cede.	Ligo, I <i>bind</i> , .. ligament.
Cessus, <i>yielded</i> , .. access.	Loquor, I <i>speak</i> , .. eloquent.
Censeo, I <i>judge</i> , .. censor.	Luo, I <i>wash away</i> , .. ablution.
Cerno, I <i>discern</i> , .. certain.	Mando, I <i>command</i> , .. mandate.
Citus, <i>roused</i> , .. excite.	Maneo, I <i>stay</i> , .. mansion.
Clamo, I <i>call out</i> , .. declaim.	Medeor, I <i>cure</i> , .. medicine.
Claudo, I <i>close</i> , .. exclude.	Memini, I <i>remember</i> , memory.
Clino, I <i>bend</i> , .. decline.	Mergo, I <i>plunge</i> , .. emerge.
Colo, I <i>till</i> , .. colony.	Metior, I <i>measure</i> , .. mete.
Cultus, <i>tilled</i> , .. cultivate.	Mensus, <i>measured</i> , mensuration.
Credo, I <i>believe</i> , .. credit.	Migro, I <i>remove</i> , .. emigrant.
Creo, I <i>create</i> , .. creator.	Misceo, I <i>mix</i> , .. miscellany.
Cresco, I <i>grow</i> , .. increase.	Mitto, I <i>send</i> , .. admit.
Cubo, or cumbo, I <i>lie down</i> , recumbent.	Missus, <i>sent</i> , .. mission.
Curro, I <i>run</i> , .. current.	Moneo, I <i>advise</i> , .. monitor.
Dico, I <i>say</i> , .. predict.	Moveo, I <i>move</i> , .. remove.
Divido, I <i>divide</i> , .. dividend.	Muto, I <i>change</i> , .. mutable.
Do, I <i>give</i> , .. donor.	Nascor, I <i>am born</i> , .. nascent.
Doceo, I <i>teach</i> , .. docile.	Natus, <i>born</i> , .. native.
Duco, I <i>lead</i> or <i>draw</i> , ductile.	Noceo, I <i>hurt</i> , .. innocent.
Emo, I <i>buy</i> , .. redeem.	Notus, <i>known</i> , .. notice.
Erro, I <i>wander</i> , .. error.	Nuncio, I <i>announce</i> , .. enunciate.
Fallo, I <i>deceive</i> , .. fallible.	Oro, I <i>pray</i> , .. oration.
Facio, I <i>do</i> or <i>make</i> , .. factory.	Paro, I <i>make</i> or <i>prepare</i> , sepa- rate.
Fendo, I <i>strike</i> , .. defend.	Pasco, I <i>feed</i> , .. pastor.
Fero, I <i>carry</i> , .. ferry.	Patior, I <i>suffer</i> , .. patience.
Ferveo, I <i>boil</i> , .. fervour.	Passus, <i>suffered</i> , .. passion.
Fido, I <i>trust</i> , .. fidelity.	Pello, I <i>call</i> , .. appeal.
Flecto, I <i>bend</i> , .. inflect.	Pello, I <i>drive</i> , .. repel.
Fligo, I <i>beat</i> , .. afflict.	Pendeo, I <i>hang</i> , .. impend.
Fluo, I <i>flow</i> , .. fluid.	

Peto, I <i>seek</i> , hence, petition.	Spondeo, I <i>promise</i> , hence, sponsor.
Placeo, I <i>please</i> , .. placid.	Statuo, I <i>place</i> , .. statue.
Plaudo, I <i>praise</i> , .. plaudit.	Stino, I <i>fix</i> , .. destine.
Pleo, I <i>fill</i> , .. plenary.	Stinguo, I <i>put out</i> , .. extinguish.
Plico, I <i>fold</i> , .. implicate.	Sto, I <i>stand</i> , .. station.
Plocto, I <i>twist</i> , .. perplex.	Stringo, I <i>grasp hard</i> , astringent.
Pono, I <i>place</i> , .. postpone.	Strictus, <i>grasped</i> , .. strict.
Positus, <i>placed</i> , .. position.	Struo, I <i>build</i> , .. structure.
Porto, I <i>carry</i> , .. porter.	Sumo, I <i>take</i> , .. assume.
Prehendo, I <i>seize</i> , .. apprehend.	Tango, I <i>touch</i> , .. tangent.
Pressus, <i>pressed</i> , .. impress.	Tendo, I <i>stretch</i> , .. extend.
Pungo, I <i>sting</i> , .. pungent.	Tensus, <i>stretched</i> , .. intense.
Puto, I <i>think</i> , .. computed.	Teneo, I <i>hold</i> , .. tenacious.
Quæro, I <i>seek</i> , .. require.	Texo, I <i>weave</i> , .. texture.
Quæsitus, <i>sought</i> , .. question.	Torqueo, I <i>twist</i> , .. torture.
Quassus, <i>shaken</i> , .. discuss.	Tribuo, I <i>give</i> , or <i>ascribe</i> , tribute.
Rapio, I <i>snatch</i> , .. rapine.	Tractus, <i>drawn</i> , .. extract.
Rego, I <i>rule</i> , .. regent.	Trudo, I <i>thrust</i> , .. intrude.
Rectus, <i>ruled</i> , .. rectitude.	Vado, I <i>go</i> , .. evade.
Rideo, I <i>laugh</i> , .. deride.	Valeo, I <i>am strong</i> , .. value.
Rogo, I <i>ask</i> , .. rogation.	Veho, I <i>carry</i> , .. vehicle.
Ruptus, <i>broken</i> , .. abrupt.	Venio, I <i>come</i> , .. convene.
Scando, I <i>mount</i> , .. ascend.	Verto, I <i>turn</i> , .. avert.
Scio, I <i>know</i> , .. science.	Video, I <i>see</i> , .. evident.
Scribo, I <i>write</i> , .. scribe.	Visus, <i>seen</i> , .. vision.
Seco, I <i>cut</i> , .. section.	Vinco, I <i>conquer</i> , .. vincible.
Sedeo, I <i>sit</i> , .. sedate.	Vivo, I <i>live</i> , .. vivify.
Sentio, I <i>perceive</i> , .. sensation.	Voco, I <i>call</i> , .. vocal.
Sequor, I <i>follow</i> , .. sequel.	Volvo, I <i>roll up</i> , .. involve.
Sero, I <i>connect</i> , .. series.	Volo, I <i>wish</i> , .. voluntary.
Servo, I <i>preserve</i> , .. servant.	Voro, I <i>devour</i> , .. voracious.
Solvo, I <i>loosen</i> , .. dissolve.	Votus, <i>vowed</i> , .. votive.
Spargo, I <i>sprinkle</i> , .. asperse.	Utor, I <i>use</i> , .. utensil.
Specio, I <i>see</i> , .. spectacle.	Usus, <i>used</i> , .. usage.
Spiro, I <i>breathe</i> , .. aspire.	

## GREEK ROOTS.

Aer, the <i>air</i> , hence, aërial.	Argos, <i>white</i> , hence, argent.
Aggelos*, a <i>messenger</i> , angel.	Aroma, <i>odour</i> , .. aromatic.
Agogos, a <i>leader</i> , demagogue.	Astron, a <i>star</i> , .. astronomy.
Agon, <i>strife</i> , hence, .. agony.	Autos, <i>one's self</i> , .. autocrat.
Anthos, a <i>flower</i> , .. anthology.	Ballo, I <i>throw or give</i> , ball.
Anthropos, a <i>man</i> , philanthropy.	Bapto, I <i>wash</i> , .. baptism.
Arche, the <i>beginning</i> , government,	Biblos, a <i>book</i> , .. bible.
anarchy.	Bios, <i>life</i> , .. biography.

\* Pronounced, *angellos*.

Bolbos, an <i>onion</i> , hence, bulbous.	Kyklos, a <i>circle</i> , hence, cylinder.
Botane, a <i>plant</i> , .. botanist.	Laos, the <i>people</i> , .. laity.
Chole, <i>bile</i> , .. choleric.	Lego, I <i>speak</i> , or <i>read</i> , elegy.
Christos, <i>anointed</i> , .. Christian.	Lethe, <i>forgetfulness</i> , .. lethargy.
Chroma, a <i>colour</i> , .. chromatics.	Lepsis, a <i>taking</i> , .. analeptic.
Chronos, <i>time</i> , .. chronicle.	Lithos, a <i>stone</i> , .. lithography.
Chrysos, <i>gold</i> , .. chrysalis.	Logos, a <i>word</i> , .. logic.
Demos, the <i>people</i> , .. democracy.	Luo, I <i>dissolve</i> , .. analysis.
Doxa, <i>glory</i> , .. doxology.	Mache, a <i>battle</i> , .. monomachy.
Dromos, a <i>course</i> , .. diadrom.	Mania, <i>madness</i> , .. maniac.
Dunamis, <i>power</i> , .. dynasty.	Mantis, a <i>prophet</i> , .. necromancy.
Ergon, <i>work</i> , .. energy.	Martyr, a <i>witness</i> , .. martyrdom.
Ge*, the <i>earth</i> , .. geography.	Mathesis, <i>learning</i> , .. mathematics.
Gennao, I <i>produce</i> , .. hydrogen.	Mechane, a <i>machine</i> , .. mechanist.
Genos, <i>kind</i> , .. heterogeneous.	Melan, <i>black</i> , .. melancholy.
Gnoo, I <i>know</i> , .. gnomon.	Metros, a <i>mother</i> , .. metropolis.
Gonia, an <i>angle</i> , .. trigon.	Metron, a <i>measure</i> , .. metre.
Gramma, a <i>letter</i> , .. grammar.	Mikros, <i>little</i> , .. microscope.
Grapho, I <i>write</i> , .. graphic.	Misos, <i>hatred</i> , .. misanthrope.
Gymnos, <i>naked</i> , .. gymnasium.	Mneme, <i>memory</i> , .. mnemonics.
Hedra, a <i>seat</i> , .. cathedral.	Monos, <i>alone</i> , .. monosyllable.
Harmonia, <i>agreement</i> , .. harmony.	Morphe, <i>shape</i> , .. metamorphosis.
Hebdomas, a <i>week</i> , .. hebdomadal.	Mythos, a <i>fable</i> , .. mythology.
Hekaton, a <i>hundred</i> , .. hecatomb.	Naus, a <i>ship</i> , .. nautical.
Helios, the <i>sun</i> , .. aphelion.	Neos, <i>new</i> , .. neophyte.
Hemera, a <i>day</i> , .. ephemeral.	Nesos, an <i>island</i> , .. Peleponnesus.
Hemi, <i>half</i> , .. hemisphere.	Neuron, a <i>nerve</i> , .. neuron.
Hepta, <i>seven</i> , .. heptarchy.	Nomos, a <i>rule</i> , or <i>law</i> , .. economy.
Heteros, <i>dissimilar</i> , .. heterodox.	Ode, a <i>poem</i> , or <i>song</i> , .. melody.
Hex, <i>six</i> , .. hexagon.	Odos, a <i>way</i> , .. Exodus.
Hieros, <i>holy</i> , .. hierarchy.	Oikesis, a <i>dwelling</i> , .. diocess.
Holos, the <i>whole</i> , .. catholic.	Oligos, <i>few</i> , .. oligarchy.
Hodos, a <i>way</i> , .. method.	Onoma, a <i>name</i> , .. anonymous.
Homos, <i>like</i> , .. homogeneous.	Optomai, I <i>see</i> , .. optic.
Hydor, <i>water</i> , .. hydrogen.	Orama, a <i>view</i> , .. diorama.
Hygros, <i>moist</i> , .. hygrometer.	Orthos, <i>right</i> , .. orthodox.
Ichthys, a <i>fish</i> , .. ichthyology.	Osteon, a <i>bone</i> , .. osteology.
Idios, <i>peculiar</i> , .. idiomatic.	Ostrakon, a <i>shell</i> , .. ostracism.
Kakos, <i>bad</i> , .. cacography.	Oxys, <i>acid</i> , .. oxygen.
Kalos, <i>beautiful</i> , .. calligraphy.	Pagos, a <i>hill</i> , .. areopagus.
Kalypto, I <i>cover</i> , .. apocalypse.	Pais, paidos, a <i>boy</i> , .. pedagogue.
Kanon, a <i>rule</i> , .. canonical.	Pan, <i>all</i> , .. panacea.
Kardia, the <i>heart</i> , .. cardiac.	Pathos, <i>feeling</i> , .. pathetic.
Kephale, the <i>head</i> , .. cephalic.	Petalon, a <i>leaf</i> , .. petals.
Kosmos, the <i>world</i> , .. cosmograp- hy.	Petros, a <i>stone</i> , .. petrify.
Kranion, the <i>skull</i> , .. cranium.	Phago, I <i>eat</i> , .. sarcophagus.
Kratos, <i>power</i> , .. aristocracy.	Phaino, I <i>show</i> , .. phasis.
Krino, I <i>discern</i> , .. criterion.	Pharmakon, a <i>remedy</i> , .. phar- macy.
Krypto, I <i>hide</i> , .. crypt.	Philos, a <i>lover</i> , .. philosopher.

\* G, in Greek, always hard, as in *get*.

Phone, a <i>sound</i> , hence, euphony.	Sepo, I <i>putrefy</i> , hence, antiseptic.
Phos, <i>light</i> , .. phosphor.	Sophia, <i>wisdom</i> , .. philosophy.
Phrasis, a <i>phrase</i> , .. antiphrasis.	Stereos, <i>solid, firm</i> , stereotype.
Phrenos, the <i>mind</i> , .. phrenology.	Stello, I <i>send</i> , .. apostle.
Phyton, a <i>plant</i> , .. zoophyte.	Stichos, a <i>line, or verse</i> , distich.
Phusis, <i>nature</i> , .. physics.	Stratos, an <i>army</i> , .. stratagem.
Plasso, I <i>form</i> , .. plastic.	Strophe, a <i>turning</i> , antistrophe.
Pneuma, the <i>wind</i> , .. pneumatics.	Taphos, a <i>tomb</i> , .. cenotaph.
Polemos, <i>war</i> , .. polemics.	Tautos, the <i>same</i> , .. tautology.
Poleo, I <i>sell</i> , .. monopoly.	Techne, <i>art</i> , .. technical.
Polis, a <i>city</i> , .. policy.	Telos, <i>distance</i> , .. telescope.
Polys, <i>many</i> , .. polyanthus.	Tetras, <i>four</i> , .. tetrarchy.
Potamos, a <i>river</i> , .. potamology.	Teuchos, a <i>book</i> , .. pentateuch.
Pous, <i>podos</i> , a <i>foot</i> , .. antipodes.	Thema, a <i>thing put forth</i> , theme.
Praktos, <i>done</i> , .. practical.	Thesis, a <i>position</i> , .. hypothesis.
Protos, <i>first</i> , .. protocol.	Theos, <i>God</i> , .. theism.
Psyche, the <i>soul</i> , .. psychology.	Tomos, a <i>section</i> , a <i>cutting</i> , anatomy.
Pteron, a <i>wing</i> , .. diptera.	Tonos, a <i>tone</i> , .. intonation.
Pyr, <i>fire</i> , .. pyre.	Topos, a <i>place</i> , .. topical.
Rheo, I <i>flow</i> , .. rhetoric.	Trope, a <i>turning</i> , .. tropic.
Sarx, <i>flesh</i> , .. sarcasm.	Typos, a <i>figure</i> , a <i>pattern</i> , type.
Skelos, the <i>leg</i> , .. isosceles.	Zoon, an <i>animal</i> , .. zodiac.
Skopeco, I <i>see</i> , .. microscope.	



THE END.







